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Adding a Shapefile

This tutorial walks through the steps of publishing a Shapefile with GeoServer.

Note: This tutorial assumes that GeoServer is running on <http://localhost:8090/geoserver/web> (<http://localhost:8090/geoserver/web>).

Getting Started

1. Download the file [nyc_roads.zip \(../_downloads/nyc_roads.zip\)](http://geoserver.org/downloads/nyc_roads.zip). This file contains a shapefile of roads from New York City that will be used during in this tutorial.
2. Unzip the nyc_roads.zip. The extracted folder consists of the following four files:

```
nyc_roads.shp
nyc_roads.shx
nyc_roads.dbf
nyc_roads.prj
```

3. Move the nyc_roads folder into `<GEOSERVER_DATA_DIR>/data` where

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`GEOSERVER_DATA_DIR` is the root of the GeoServer data directory. If no changes were made to the GeoServer file structure, the path should be `geoserver/data_dir/data/nyc_roads`.

Create a New Workspace

The first step is to create a *workspace* for the Shapefile. The workspace is a container used to group similar layers together.

1. In a web browser navigate to <http://localhost:8080/geoserver/web> (<http://localhost:8080/geoserver/web>).
2. Log into GeoServer as described in the [Logging In \(./web-admin-quickstart/index.html#logging-in\)](#) quick start.
3. Navigate to *Data Workspaces*.

Workspaces page

4. To create a new workspace click, select the *Add new workspace* button. You will be prompted to enter a workspace *Name* and *Namespace URI*.

Configure a New Worksapce

5. Enter the name `nyc_roads` and the URI `http://opengeo.org/nyc_roads` A workspace name is a name describing your project and cannot exceed ten characters or contain a space. A Namespace URI (Uniform Resource Identifier), is typically a URL associated with your project, with perhaps a different trailing identifier.

NYC Roads Workspace

6. Click the *Submit* button. GeoServer will append the `nyc_roads` workspace to the bottom of

Workspaces

Manage GeoServer workspaces

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

<< < 1 > >> Results 1 to 7 (out of 7 items)

<input type="checkbox"/> Workspace Name
<input type="checkbox"/> sf
<input type="checkbox"/> topp
<input type="checkbox"/> it.geosolutions
<input type="checkbox"/> sde
<input type="checkbox"/> nurc
<input type="checkbox"/> tiger
<input type="checkbox"/> cite

<< < 1 > >> Results 1 to 7 (out of 7 items)

the Workspace View list.

New Workspace

Configure a new workspace

Name

Namespace URI

The namespace uri associated with this workspace



New Workspace

Configure a new workspace

Name
nyc_roads

Namespace URI
http://opengeo.org/nyc_roads

The namespace uri associated with this workspace

Submit Cancel

Create a Store

1. Navigate to *Data Stores*.
2. In order to add the nyc_roads data, we need to create a new Store. Click on the *Add new store* button. You will be redirected to a list of data types GeoServer supports.

Data Sources

3. Because nyc_roads is a shapefile, select *Shapefile: ESRI(tm) Shapefiles (.shp)*.
4. On the *New Vector Data Source* page begin by configuring the *Basic Store Info*. Select the workspace nyc_roads from the drop down menu, type NYC Roads for the name and enter a brief description, such as Roads in New York City.
5. Under the *Connections Parameters* specify the location of the shapefile- file:data/nyc_roads/nyc_roads.shp.







Data Info and Parameters for nyc_roads

6. Press Save. You will be redirected to *New Layer chooser* page in order to configure nyc_roads layer.






New data source

Choose the type of data source you wish to configure

Vector Data Sources

-  Directory of spatial files - Takes a directory of spatial data files and exposes it as a data store
-  PostGIS NG - PostGIS Database
-  PostGIS NG (JNDI) - PostGIS Database (JNDI)
-  Properties - Allows access to Java Property files containing Feature information
-  Shapefile - ESRI(tm) Shapefiles (*.shp)
-  Web Feature Server - The WFSDataStore represents a connection to a Web Feature Server. This connection provides access to the published by the server, and the ability to perform transactions on the server (when supported / allowed).

Raster Data Sources

-  ArcGrid - Arc 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

New Vector Data Source

Shapefile
ESRI(tm) Shapefiles (*.shp)

Basic Store Info

Workspace
nyc_roads

Data Source Name
NYC Roads

Description
Roads in New York City

Enabled

Connection Parameters

URL
file:data/nyc_roads/nyc_roads.shp

namespace
http://opengeo.org/nyc_roads

create spatial index

charset
ISO-8859-1

memory mapped buffer

Layer Configuration

1. On the *New Layer chooser* page, select the Layer name nyc_roads.

New Layer Chooser

2. The following configuration define the data and publishing parameters for a layer. Enter a short *Title* and *Abstract* for the nyc_roads shapefile.

Basic Resource Information for Shapefile

New Layer chooser

Here is a list of resources contained in the store 'NYC Roads'. Click on the layer you wish to configure

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

Layer with namespace and prefix	Published
nyc_roads	

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

nyc_roads:nyc_roads

Configure the resource and publishing information for the current layer

Data **Publishing**

Basic Resource Info

Name

Title

Abstract

Generate the shapefile's *bounds* by clicking the *Compute from data* and then *Compute from Native bounds*.

Generate Bounding Box

4. Set the shapefile's *style* by first moving over to the *Publishing* tab.
5. The select *line* from the *Default Style* drop down list.

Select Default Style

6. Finalize your data

and publishing configuration by scrolling to the bottom and clicking *Save*.

Bounding Boxes

Native Bounding Box

Min X	Min Y	Max X	Max Y
984,018.166	207,673.095	991,906.497	219,622.54

Compute from data

Lat/Lon Bounding Box

Min X	Min Y	Max X	Max Y
-74.001	40.737	-73.972	40.769

Compute from native bounds

nyc_roads:nyc_roads

Configure the resource and publishing information for the current layer

Data **Publishing**

Basic Settings

Name

nyc_roads

- StyleInfoImpl[cite_jakes]
- StyleInfoImpl[concat]
- StyleInfoImpl[dem]
- StyleInfoImpl[flags]
- StyleInfoImpl[giant_polygon]
- StyleInfoImpl[grass]
- StyleInfoImpl[green]
- StyleInfoImpl[line]**
- StyleInfoImpl[medford_buildings]
- StyleInfoImpl[medford_citylimits]
- StyleInfoImpl[medford_parks]
- StyleInfoImpl[medford_streets]
- StyleInfoImpl[medford_zoning]
- StyleInfoImpl[poi]
- StyleInfoImpl[point]
- StyleInfoImpl[poly_landmarks]
- StyleInfoImpl[polygon]
- StyleInfoImpl[pophatch]
- StyleInfoImpl[population]
- StyleInfoImpl[rain]
- StyleInfoImpl[line]






Preview the Layer

1. In order to verify that the nyc_roads is probably published we will preview the layer. Navigate to the *Map Preview* and search for the nyc_roads:nyc_roads link.

Layer Preview

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

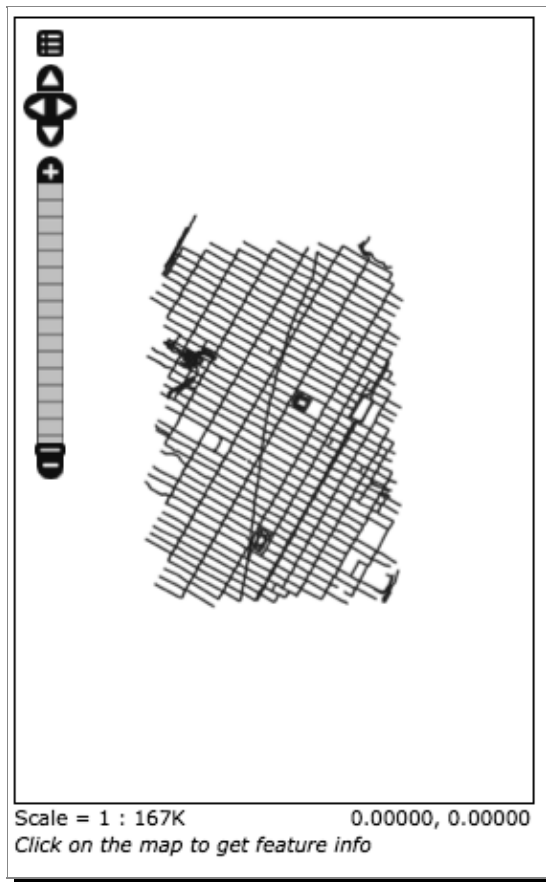
<< < 1 2 > >> Results 1 to 25 (out of 26 items)

Type	Name	Title	Common Formats	All F
	nurc:Arc_Sample	A sample ArcGrid file	OpenLayers KML	<input type="button" value="Sele"/>
	nurc:Img_Sample	North America sample imagery	OpenLayers KML	<input type="button" value="Sele"/>
	nurc:Pk50095	Pk50095 is a A raster file accompanied by a spatial data file	OpenLayers KML	<input type="button" value="Sele"/>
	nurc:mosaic	Sample PNG mosaic	OpenLayers KML	<input type="button" value="Sele"/>
	nyc_roads:nyc_roads	Subset of NYC roads	OpenLayers KML GML	<input type="button" value="Sele"/>

Layer Preview

2. Click on the *OpenLayers* link under the *Common Formats* column.
3. Success! An OpenLayers map should load with the default line style.

OpenLayers map of nyc_roads



Previous: [Web Administration Interface Quickstart \(../web-admin-quickstart/index.html\)](#)

Next: [Adding a PostGIS Table \(../postgis-quickstart/index.html\)](#)

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