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| `Document # | Title:  **Local Website Development Setup Windows 10 64bit** | Print Date:  **11/21/2017** |
| Revision #  **1.0** | Prepared by:  **Terrance Marcelle** | Date Prepared: **11/21/2017** |
| Effective Date: | Reviewed by: | Date Reviewed: |
| Standard:  **Process** | Approved by: | Date Approved: |

**Reason for this document:**

Setting up a local development environment in windows is a little more complicated than setting it up in Linux or on Macs. This document aims to detail the process.

**Scope:**

Developers who will be working with the Global Fin Print website.

**Required Software:**

[Python 3.5.4 ( 64bit )](https://www.python.org/downloads/release/python-354/)

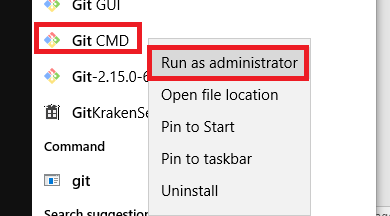
[EDB PostgreSQL 9.5.10](https://www.enterprisedb.com/downloads/postgres-postgresql-downloads)

[OSGeo4W 64bit](https://trac.osgeo.org/osgeo4w/)

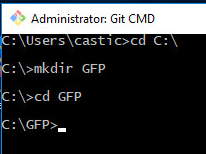
[Node.js](https://nodejs.org/en/download/) 64bit

**Process:**

1. Clone the GlobalFinPrint Repository to a folder using [GIT](https://git-scm.com/downloads)
   1. Open the git command window as administrator



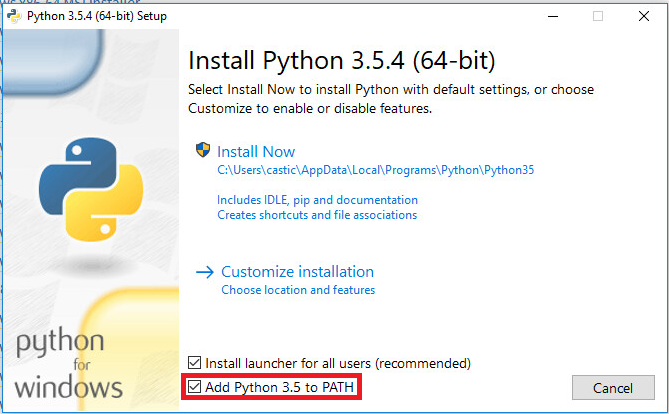
* 1. Change directory to the C:\ drive and make a directory for the GlobalFinPrint Repository



* 1. Clone the Github Repository with the following command

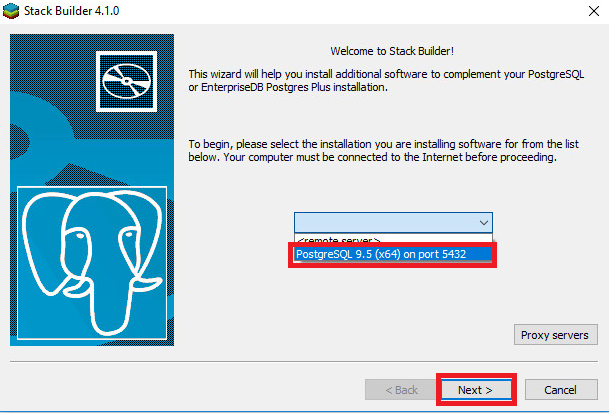
git clone https://github.com/GlobalFinPrint/global\_finprint.git

1. Download and Install Python 3.5.4 ( 64bit )
   1. Ensure that “Add Python 3.5 to PATH” is selected

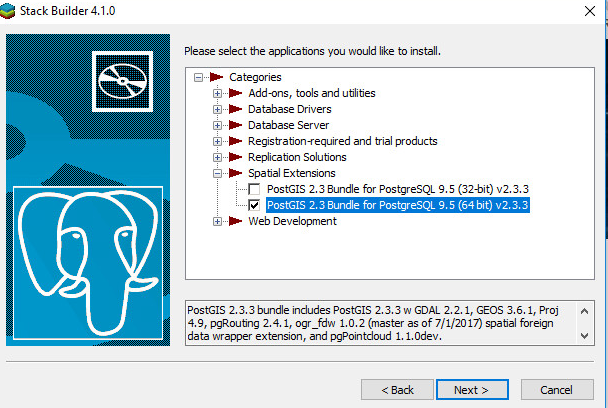


Most of this steps in this setup can be found [here](https://docs.djangoproject.com/en/1.11/ref/contrib/gis/install/#django) under the windows section

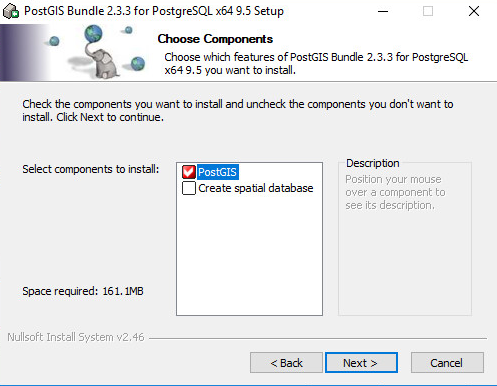
1. Download and Install [EDB PostgreSQL 9.5.10](https://www.enterprisedb.com/downloads/postgres-postgresql-downloads)
   1. Please make a note of the password you create during the setup
   2. At the end of the installation you will be asked to install additional components via stack builder. Select the Python version from the dropdown and click next.

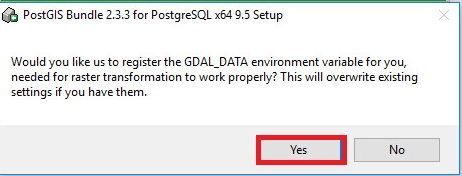


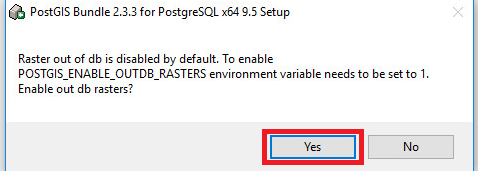
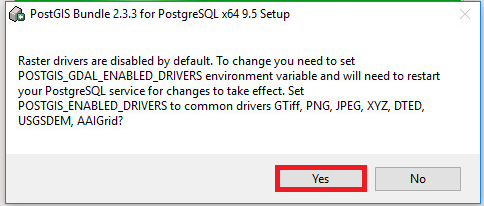
* 1. It will then download an application list. Select the Spatial Extensions-> ‘PostGIS 2.3 Bundle for PostgreSQL 9.5 (64bit) v2.3.3’ and click Next



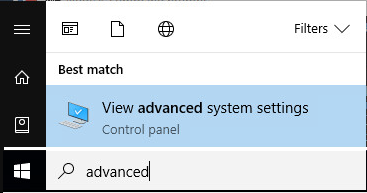
* 1. It will then download the necessary files. You then need to click next and agree to the terms of service when it appears. At this screen ensure PostGIS is selected then continue with the installation.



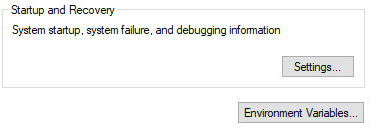




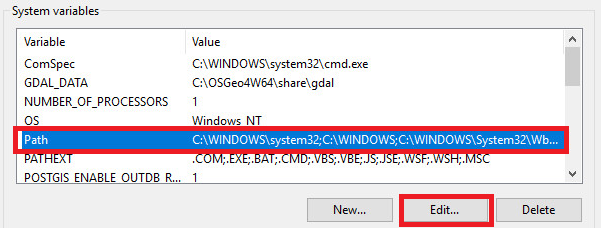
* 1. Finally add the psql path to the environmental path variable
     1. Click the windows button and type advanced, select View advanced system settings



* + 1. Select Environmental Variables

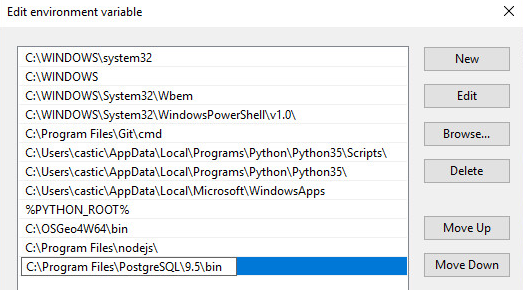


* + 1. Under “System variables”, select “Path” and click “Edit”.



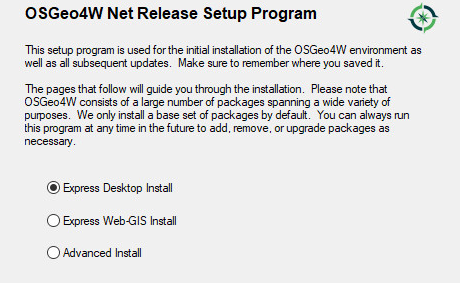
* + 1. Enter the location of the PastgreSQL bin folder. In this case its

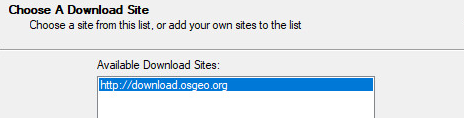
C:\Program Files\PostgreSQL\9.5\bin , then click ok



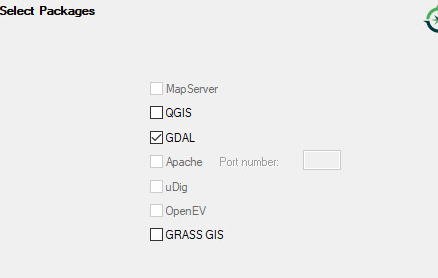
1. Download and Install [OSGeo4W](https://trac.osgeo.org/osgeo4w/) 64bit
   1. First Select Express Desktop Install option.

Note: This is necessary to ensure all the required Libraries are installed.

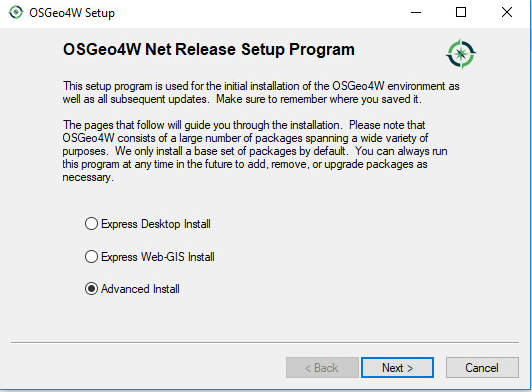




Ensure that only the GDAL Package is selected



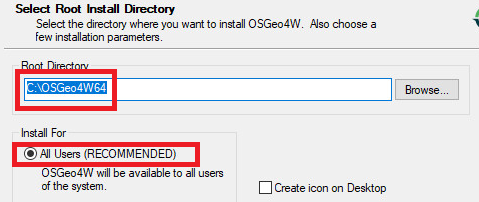
* 1. Once this is completed, run the installer again. This time you will select “Advanced Install.



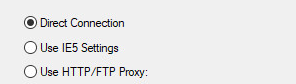
* 1. Select Install from Internet

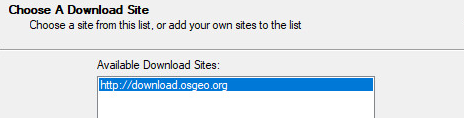


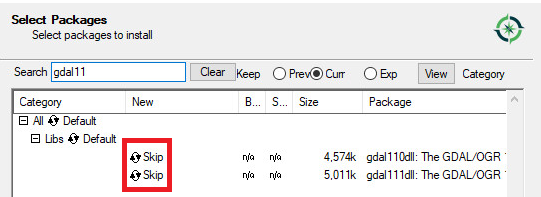
* 1. The root directory should be C:\OSGeo4W .

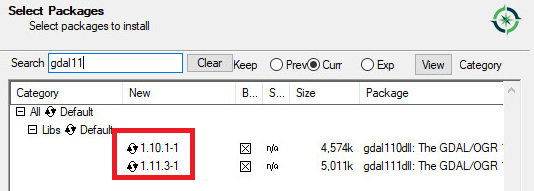


* 1. The local package Directory does not matter
  2. Use the Direct Connection Option on the next screen



* 1. Select from the available download sites
  2. It will connect and allow you to choose packages to install. In the search Box type gdal11 . Next Expand the Libs and click the items that say skip. It should then change to the version number of the package. Then click Next.





* 1. Click Next to install the required dependencies, Agree with the licensing and then click to install.

1. Add environmental Variables and registry information.
   1. Open command prompt as administrator, paste and run the following

set OSGEO4W\_ROOT=C:\OSGeo4W64

set GDAL\_DATA=%OSGEO4W\_ROOT%\share\gdal

set PROJ\_LIB=%OSGEO4W\_ROOT%\share\proj

set PATH=%PATH%;%PYTHON\_ROOT%;%OSGEO4W\_ROOT%\bin

reg ADD "HKLM\SYSTEM\CurrentControlSet\Control\Session Manager\Environment" /v Path /t REG\_EXPAND\_SZ /f /d "%PATH%"

reg ADD "HKLM\SYSTEM\CurrentControlSet\Control\Session Manager\Environment" /v GDAL\_DATA /t REG\_EXPAND\_SZ /f /d "%GDAL\_DATA%"

reg ADD "HKLM\SYSTEM\CurrentControlSet\Control\Session Manager\Environment" /v PROJ\_LIB /t REG\_EXPAND\_SZ /f /d "%PROJ\_LIB%"

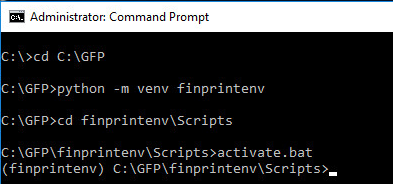
1. Create the python virtual environment to run the application.
   1. Open up the commandline as administrator and change directory to the folder that houses the global\_finprint project.
   2. Run the following command to create the python virtual environment.

python -m venv finprintenv

* 1. Change directory into the newly created environment’s scripts folder, then activate the environment

cd finprintenv\Scripts

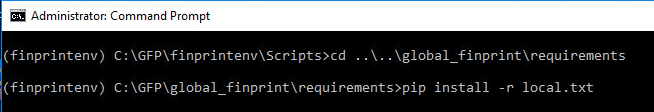
activate.bat



1. Next we install the python requirements for the project. These requirements are located in the **global\_finprint/requirements** folder ( located in the downloaded git repository ), we will use the local.txt folder to install the base requirements.
   1. Within the same opened command prompt type the following.

cd ..\..\global\_finprint\requirements

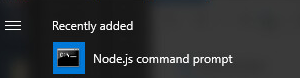
pip install -r local.txt



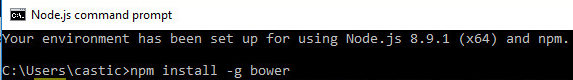
* 1. Then run

pip install Pillow

1. Download and install [Node.js](https://nodejs.org/en/download/) ( 64bit version)
2. From the start command click on the “node.js command prompt”



1. Next install bower
   1. npm install -g bower



1. Install Bower in the global\_finprint folder:cd

cd C:\GFP\global\_finprint

bower install

1. Create a PostgreSQL finprint user
   1. Open a command prompt as administrator and type:

createuser -U postgres -W finprint

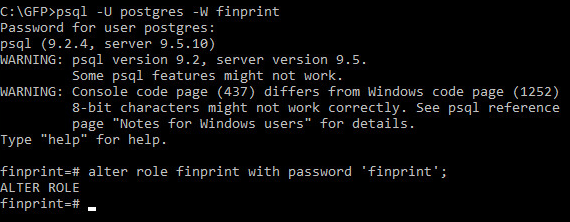
Note: The password it asks for is the one you originally used when setting up the PostgreSQL application.

You should be taken back to the command prompt if successful.

* 1. Login and set the password for the finprint user:

psql -U postgres -W finprint

alter role finprint with password ‘finprint’;



* 1. Next we create a database.

createdb -U postgres -W -O finprint finprint

* 1. Login to the finprint database and create postgis extension

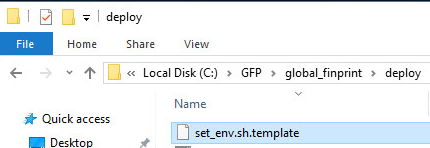
psql -U postgres -W finprint

create extension postgis;

1. Restore the database from a backup
   1. Open a new command prompt as administrator
   2. Change Directory to the location of the database backup ( in this case it’s the GFP folder) and run the following command to restore:

pg\_restore -U postgres -W -d finprint global\_finprint\_prod\_db\_81.backup

1. Set the configuration files to point to the local database as well as generate the Django secret key.
   1. Open the “global\_finprint\deploy” folder, you will find a configuration file called “set\_env.sh.template”



* 1. We will create a bat script that sets these vairables for us. This script will need to be run every time we activate the virtual environment.

To generate the Django Secret Key, use [this site](https://www.miniwebtool.com/django-secret-key-generator/).

* 1. Create a file called “sample-settings-for-django.bat” in C:\GFP and paste the below information into it.

set DJANGO\_SETTINGS\_MODULE=config.settings.local

set DJANGO\_AWS\_SECRET\_ACCESS\_KEY="lJxQVu+4ccNuVPd7WgpeAhcIp8+h4IzMo2HMr2TE"

set DJANGO\_SERVER\_ENV=dev

set DJANGO\_AWS\_STORAGE\_BUCKET\_NAME=finprint-videos-dev

set DJANGO\_LOGGING\_DIR=C: \GFP\logs.log

set DJANGO\_SECRET\_KEY="fv6rqb02exmd4b@c4-g8l7+krj\*!hj8jqed1)&-82n-jrf7x-d"

set DJANGO\_SETTINGS=config.settings.local

set DJANGO\_AWS\_ACCESS\_KEY\_ID=AKIAJMQP6OD5SQWJXBXA

set DJANGO\_DATABASE\_URL=postgresql://finprint:finprint@localhost:5432/finprint

Note: The Log, Django Key and Database URL will all have to be manually set. The AWS settings are from AWS.

1. Install Bower in the global\_finprint project directory.
   1. Change into the directory

cd C:\GFP\global\_finprint

* 1. Install bower:

bower install

1. Start the project .
   1. Open the command line as administrator and change directory to the global\_finprint project folder.

cd C:\GFP\global\_finprint

* 1. Activate the Virtual Environment

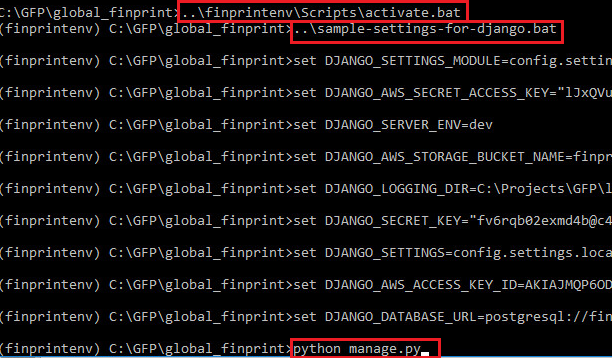
..\finprintenv\Scripts\activate.bat

* 1. Set the Environmental Variables

..\sample-settings-for-django.bat

* 1. Run the command:

python manage.py

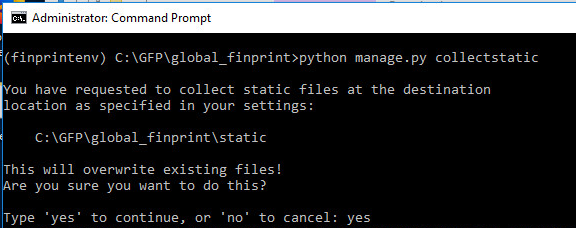


If everything goes well it should complete and take you back to the command prompt.

* 1. Next we run the following command, to move all the bower and js files to static root, so that it’s all served from one place.

python manage.py collectstatic

yes



cd global\_finprint/static



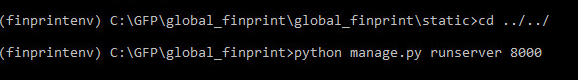
copy version.example.txt version.txt



* 1. Finally we start the server.

cd ../../

python manage.py runserver 8000



* 1. You can now open your browser and paste the following url:

http://localhost:8000