

GISVM 14.04.3 POSTGIS

YOUR POSTGIS SERVER COMPANION

QUICKSTART & PASSWORDS

Beta Version - 20160130

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What's inside



Ubuntu 14.04.3 LTS Server 32bit

- + Private (NAT) & Local (Bridge) networks
- + Apache2 Web server & PHP5
- + Samba windows network
- + OpenSSH
- + Webmin 1.780
- + Shellinabox



PostgreSQL 9.5.0

- + PostGIS 2.2.1
- + phpPgAdmin 5.1
- + postgis sample database
- + natural earth 2 sample data

Passwords

	LOGIN	PASSWORD	URL
Ubuntu shell (&sudo)	gisvm	gisvm	http://gisvm:4200 (shellinabox)
Local site (Apache2)	gisvm	gisvm	<u>http://gisvm</u>
PostgreSQL (Database: postgis)	postgres	gisvm	<u>http://gisvm/phppgadmin/</u>
Webmin	gisvm	gisvm	http://gisvm:10000
Samba share (/home/gisvm/gisdata) (/samba/gisdata)			(Windows Shortcut) \\gisvm\gisdata



First time run

Three simple steps: Download, unzip and run

1. Download

GIS Virtual Machine is a complete and independent computer on a file. It is optimized to use less than 2 GB of space on your disk at start. You can download and get it in a compacted 7z file that is less than 200 MB.

2. Unzip

After download it you must uncompress the 7z file. You must have a uncompress program installed or install 7z available as free software: <u>http://www.7-zip.org/download.html</u>

3. Run

To run it you must have a Virtual Machine Player installed or install a free available:

- Install VirtualBox, available as free software:

https://www.virtualbox.org/wiki/Downloads



VMware Workstation 12.1.0 Player for Windows 64-bit operating systems.



Download

About This Product

DESCRIPTION



- Run VirtualBox and File> Import Appliance... and select the "gisvm.ovf" file found inside the gisvm unpacked folder.

Ŷ ()racle VM VirtualBox Manager			Importing	Appliance: Importing appliance 'C:\Use	×
File	Machine Help			G Import Virt		
B	Preferences	Ctrl+G		Appliance	Importing virtual disk image 'gisvm.vmdk' (2/3)	
ิด	Import Appliance	Ctrl+I		These are th	6 seconds remaining	he
R	Export Appliance	Ctrl+E	elcome to VirtualBox!	imported Virt dicking on th		
Ø	Virtual Media Manager	Ctrl+D	e left part of this window is a lis	Description	Configuration	-
¢.	Network Operations Manager		cause you haven't created any	Virtual System 1		
9	Check for Updates		order to create a new virtual m	😪 Name	gisvm	=
	Reset All Warnings		ain tool bar located at the top of	🗮 Guest OS Type	👺 Ubuntu (32-bit)	
			u can press the F1 key to get in	CPU	1	
	Exit	Ctrl+Q	ww.virtualbox.org for the latest	RAM	512 MB	

- After importing, that only takes a min, you can "Start" the gisvm virtual machine





 Start VMware Player and Player > File > Open... and select the "gisvm.vmx" file found inside the gisvm unpacked folder.



Then click on "Power on" or "Play virtual machine"



Or just **double click the file** "gisvm.vmx" found inside the gisvm unpacked folder.



How to use it

1. Open QGIS sample project to view the included Natural Earth data

Use the QGIS installed on your computer or on any other computer at your network, to open the included QGIS sample project file: "**gisvm qgis example.qgs**" found in the qgis subfolder inside the gisvm unpacked folder.

Note: If you don't have QGIS installed, just download it from the official site and install it, it's free software: <u>http://www.qgis.org/</u>

	🦻 gisvm [Running] - Oracle VM VirtualBox
	File Machine View Input Devices Help
u	lbuntu 14.04.3 LTS gisvm tty1
g	isvm login:
🧭 QGIS 2.8.6-Wien	Choose a QGIS project file to open
Project Edit View Layer	G v isvm → qgis
	Organize 🔻 New folder
	🖉 📃 Desktop 🖍 Name 🏠 3
	Downloads Recent Places

When you open the project all the data is store on the gisvm virtual machine, inside the "**postgis**" database, using several tables from the "**ne**" schema.

👷 gisvm [Running] - Oracle VM VirtualBox	
File Machine View Input Devices Help	
Re Ubuntu 14.04.3 LTS gisvm tty1	
🧭 QGIS 2.8.6-Wien - gisvm qgis example	
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dbname='postgis' host=gisvm port=5432 user='postgres' sslmode=disable key='gid' srid=4326 type=P0	OINT table="ne"."ne_10m_populated_pl



2. Add a new PostGIS layer to your QGIS project from GISVM

To create a new PostGIS connection on QGIS, simply type: **Name = gisvm ; Host = gisvm** ; **Database = postgis ; Username = postgres ; Password = gisvm**

You can also **activate: Save Username & Save Password** so you don't have to type in each type you use the connection.

gisvm [Running] - Oracle VM VirtualBox	🥂 Create a New PostGIS connection
Re Ubuntu 14.04.3 LTS gisum ttu1	Connection Information
🧭 QGIS 2.8.6-Wien - gisvm qgis example	Service gisvm
Project Edit View Layer Settings Plugins	Host gisvm
	Port 5432
Add PostGIS Table(s)	Database postgis
Connections 2	SSL mode disable 👻
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	Password
Schema / Table	Save Password
R	Only show layers in the layer registries
Po	
	On. y look in the 'public' schema
9 a	Also list tables with no geometry
Also list tables with no geometry	

After creating the connection you just **select it (gisvm) and click on Connect** to display all tables (layers) available to add to your project.

💅 gisvm [Running] - Oracle VM VirtualBox	Add PostGIS Table(s)	· · · · · · · · · · · · · · · · · · ·
File Machine View Input Devices I Re Ubuntu 14.04.3 LTS g is um ttg1 V QGIS 2.8.6-Wien - gisvm qgis example Project Edit View Laver Settings Plugins	Connections gisvm Connect New Edit Delete	Load Save
	Schema / Table Co	lumn Data Type Spatial Type SRID
Image: Second state sta	ne ne ne_lom_admin_0_countries get ne ne_ne_10m_admin_1_states_provinces_lines get ne ne_lom_populated_places_simple get ne ne_lom_turban_areas get f Also list tables with no ge metry Search options	om Geometry Multipolygon 4326 om Geometry V Multiline 4326 om Geometry V Multiline 4326 om Geometry Multiline 4326 om Geometry Multipolygon 4326 Keep dialog open
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© (i) (ii)

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3. Upload a new PostGIS layer to GISVM using QGIS

Add any layer to your QGIS project, for instance, the roads shapefile (**ne_10m_roads.zip**) from Natural Earth dataset: <u>http://www.naturalearthdata.com/downloads/10m-cultural-vectors/</u>



Use the DB Manager tool, on the Database menu, to import a PostGIS vector layer to GISVM

C QGIS 2.8.6-Wien - gisvm qgis example	1 - DB Manager
Project Edit View Layer Settings Plugins Vector Raster	Database Web Processing Help
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E SpatiaLite	Create single-part geometries instead of sulti-part
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	OK Cancel
	PostGIS
200rdinate	



The **ne_10m_roads** layer (table) is then available to be used from PostGIS on GISVM, and you can add it to your QGIS project, just like on the previous example:

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4. Upload a new PostGIS layer to GISVM using SHP2PGSQL

Add any shapefile layer PostGIS database with the included command line tool: shp2pgsql, for instance, the airports shapefile (**ne_10m_roads.zip**) from Natural Earth dataset: <u>http://www.naturalearthdata.com/downloads/10m-cultural-vectors/</u> Just download, extract and copy it inside GISVM, into "gisdata" shared folder: \\gisvm\gisdata





Go into terminal and **login as gisvm, password = gisvm**, using the Virtualbox or VMware player window or just your browser through the included shellinabox: <u>http://gisvm:4200</u> After login change directory to where you saved the shp file (**cd gisdata/ne_10_airports**)



Just type or copy&paste the following command line to upload the shp file into the **ne_10m_airtports table**, from **ne schema**, inside the **postgis database**.

shp2pgsql -s 4326 -D -I -W "latin1" ne_10m_airports.shp ne.ne_10m_airports | psql -h localhost -d postgis -U postgres

When it asks you for the postgres password, type: gisvm



You can now add it to your QGIS project:





How to manage it

GISVM comes installed with two great full feature administration tools that you can use to manage it completely: **phpPgAdmin** and **Webmin**

1. Using phpPgAdmin to manage the PostgreSQL server

To manage the PostgreSQL running inside the GISVM you can use the included web application phpPgAdmin: <u>http://gisvm/phppgadmin</u>, **login with postgres, password = gisvm**



After login just navigate through postgis database, ne schema and ne_10m_airports table. It allows the execution of all kinds of PostgreSQL operations, like browse and edit the data, add a new column or DROP (delete) the table.

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n Triggers gps Rules	_code	character varying(254)							Browse	Alter	Privileges
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geo	m	geometry(Point,4326)						Browse	Alter	Privileges
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gisvm/phppgadmin/tables.php?action=confirm_drop&	lserver:	localhost:5432:allc	w&da	tabase=po	stgis&sche	ema=ne&t	able=ne	10m_airport	ts		E.



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2. Using pgAdmin III to manage the PostgreSQL server

If you have installed the pgAdmin III on your computer you can also use it to manage the PostgreSQL server running on GISVM. If you don't you can install it for free from: http://www.postgresql.org/ftp/pgadmin3/release/v1.22.0/

RunpgAdmin and create a new Server Registration with: **Name: gisvm, Host: gisvm, username: postgres Password: gisvm**



Then use that connection to access the PostgreSQL server running in GISVM:





3. Using Webmin to manage the Ubuntu operating system

To manage the ubuntu operating system in GISVM just use the included web application Webmin inside your browser: <u>http://gisvm:10000</u>

Login with: gisvm and password: gisvm



After login you can completely manage the GISVM virtual machine, make updates, create new users, restart running services, configure network, server applications like SAMBA:

🧕 gisvm@gisvm: ~/gisdata/ 🗙	PhpPgAdmin	🗙 🌏 Webmin 1.78	0 on gisvm (U × +	
		C Q Search	☆自	♥ ∔ ♠ ≡
Login: gisvm Webmin System 	Module Config Select all. Invert selec copy. View all connect	Samba Windov Samba versior tion. Create a new file shar tions.	VS File Sharin 14.1.6-Ubuntu e. Create a new printer	Search Docs share. Create a new
Servers	Share Name	Path	Security	
Apache Webserver	printers	All Printers	Printable to all	known users
PostgreSQL Database Server	print\$	/var/lib/samba/printers	Read only to al	I known users ≡
Samba Windows File Sharing	🔲 gisdata	/samba/gisdata	Read/write to e	veryone
 Networking Hardware Cluster 	Delete Selected Shar	es		
Un-used Modules Search: View Module's Logs Curbon Information	Unix Networking	Windows Networking	Authentication	Windows to Unix Printing
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	Miscellaneous Option	s Winbind Options	File Share Defaults	Printer Share Defaults
	AddType Alias Mo SetHa			-



4. Use the local site to get more information on using GISVM

GISVM comes with a simple local site with more information and several other links to help you start using it: <u>http://gisvm</u>





REMEMBER, USE GISVM AT YOUR OWN RISK.

THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

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Please visit the GISVM project site regularly to get updates and help us to make it better!

http://gisvm.com

Thank you for using it.

THAT'S IT, HAVE FUN !!!!!!!!!

