
OSGeoLive Documentation

*Release @OSGeoLive-
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OSGeo

May 25, 2021

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OSGeoLive is a self-contained bootable DVD, USB thumb drive or Virtual Machine based on [Lubuntu](#), that allows you to try a wide variety of open source geospatial software without installing anything. It is composed entirely of free software, allowing it to be freely distributed, duplicated and passed around.



It provides pre-configured applications for a range of geospatial use cases, including storage, publishing, viewing, analysis and manipulation of data. It also contains sample datasets and documentation.

To try out the applications, simply:

1. Insert DVD or USB thumb drive in computer or virtual machine.
2. Reboot computer. (verify boot device order if necessary)
3. Press “Enter” to startup & login.
4. Select and run applications from the “Geospatial” menu.

OSGeoLive is an [OSGeo Foundation](#) project. The OSGeo Foundation is a not-for-profit supporting Geospatial Open Source Software development, promotion and [education](#).

1.1 Getting started with OSGeoLive

This Quick Start describes how to start OSGeoLive from a DVD or USB.

1.1.1 System Requirements

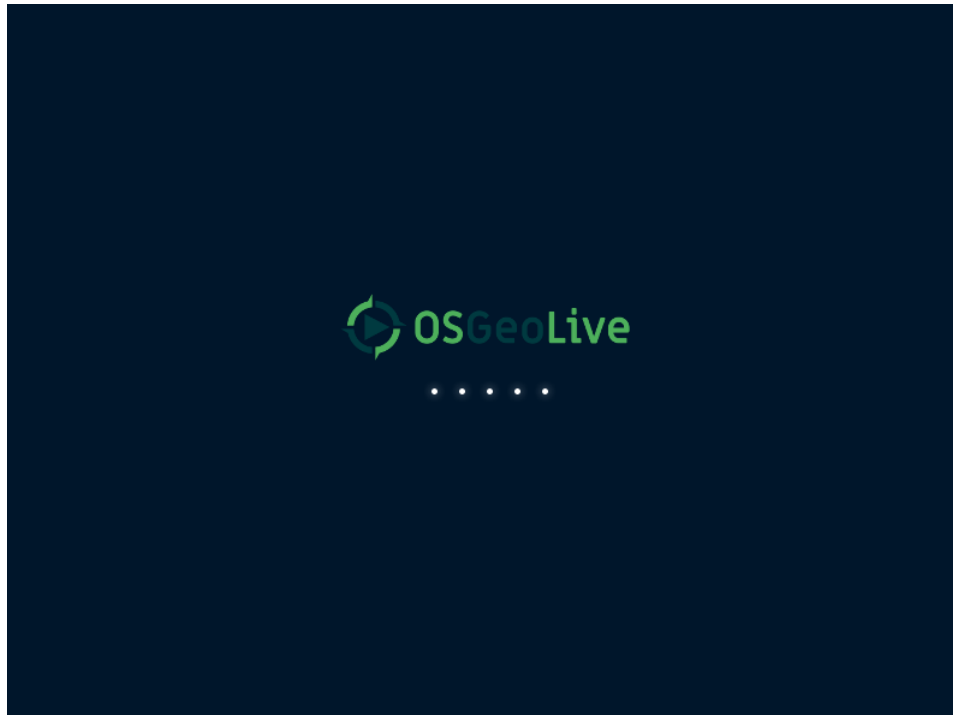
Your computer should have at least:

- RAM: 1 GB.
- CPU: 1 GHz i686 or compatible (Intel/AMD)
- Hard Disk:
 - None required if running directly from the DVD
 - 20 GB if you wish to install the operating system.
- Mouse: a 3-button mouse is useful, especially for Mac trackpad users.

1.1.2 Run:

Source an OSGeoLive DVD, ISO available from: [[Download](#)] Put the DVD into your computer's CD drive, then reboot your computer.

If your computer is set to boot from CD (as is often the case) you should boot up into a Lubuntu system, with Geospatial applications installed. Otherwise you'll have to adjust the BIOS boot settings or press the boot menu button just after powering-up.



Sit back while the system boots up.



Try the many applications from the *Geospatial* menu.

1.1.3 See Also:

- **Getting started with Ubuntu and the LXDE desktop (which is used by OSGeoLive):** <https://help.ubuntu.com/community/Lubuntu/Documentation> and <https://www.lxde.org/>
- **Getting started with the Ubuntu operating system:** local eBook and extended online help
- *Running in a Virtual Machine*

- *Install OSGeoLive to Hard Disk*
- *Creating an OSGeoLive Bootable USB flash drive*

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1.2 Change language or keyboard type

1.2.1 Switching Language

Many common languages are included on OSGeoLive. To switch languages:

1. Log out
2. Select user="user", password="user"
3. Select another language from the top panel menu.
4. Press the *Log in* button.
5. Repeat the process if needed or if you wish to change languages again.



The system menus and many of the applications will now appear in the language chosen. If a specific program continues to display in English, then the program doesn't have a translation available - please consider volunteering to write a translation. Contact the program of interest directly for more information.

For additional languages see *Preferences* → *Language Support* from the main menu. (Requires an internet connection).

1.2.2 Keyboard Support

International keyboard support is installed, but you will need to configure the system for your specific keyboard. To change settings open *Preferences* → *Keyboard Input Methods* from the main menu and click on the *Input Method* tab. Next click on *Customize active input methods* and then on the *Select an input method* button. Now click the *Add* button on the right to add an additional layout and then *Close* the IBus Preferences window.

You can now click on the keyboard icon on the lower desktop menu bar to select the active keyboard layout.

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1.3 Install OSGeoLive to Hard Disk

OSGeoLive can be installed onto your hard disk, the same way an Ubuntu distribution is installed.

This process can also be run inside a Virtual Machine to create a permanent OSGeoLive Virtual Machine from a DVD or ISO image.

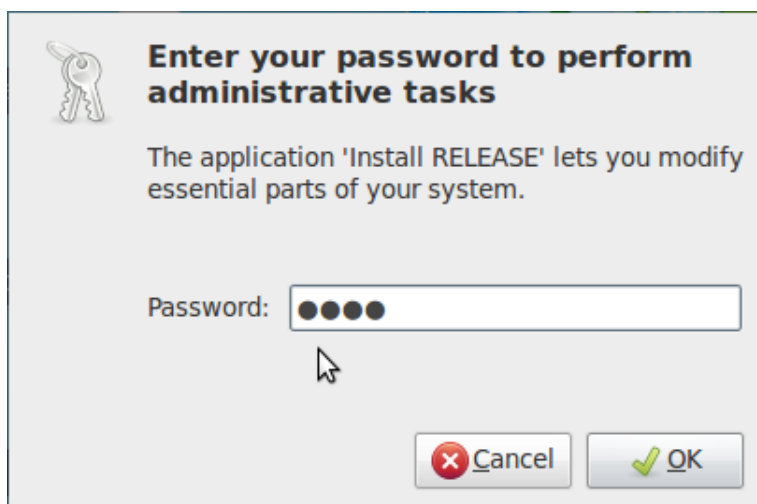
1.3.1 System Requirements

- 20 GB of spare Hard Disk Space

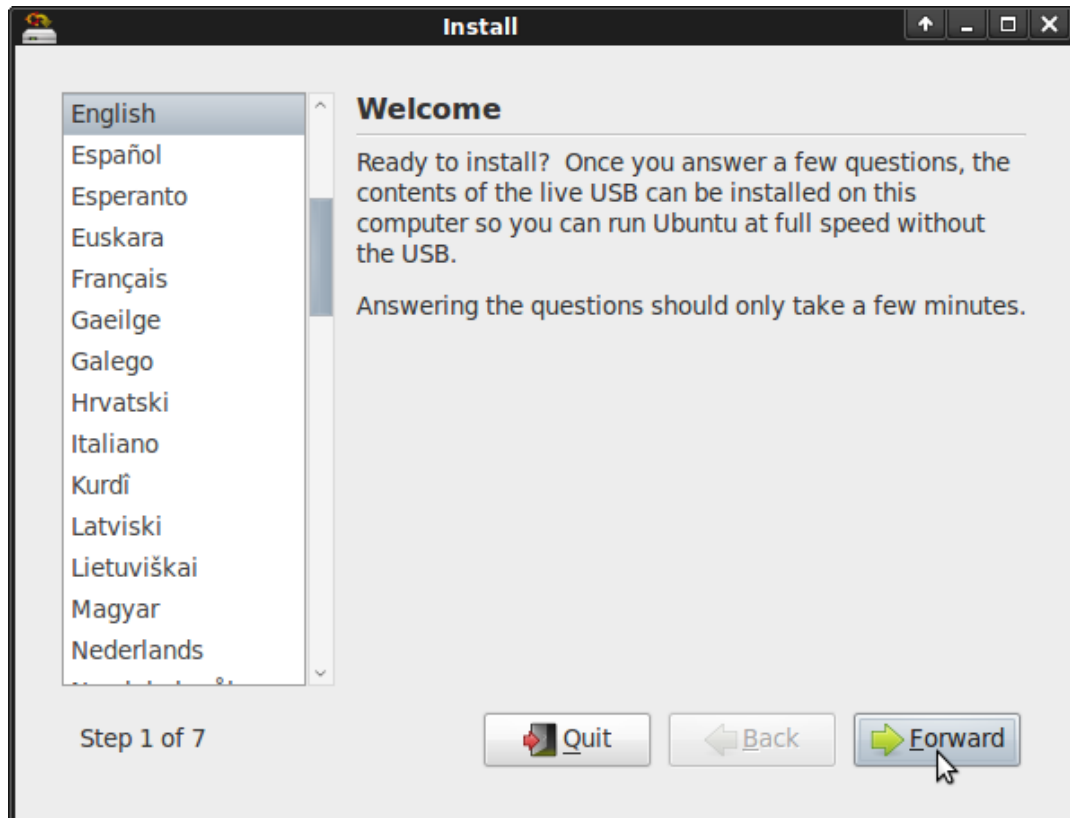
1.3.2 Install OSGeoLive



Select *Install RELEASE*



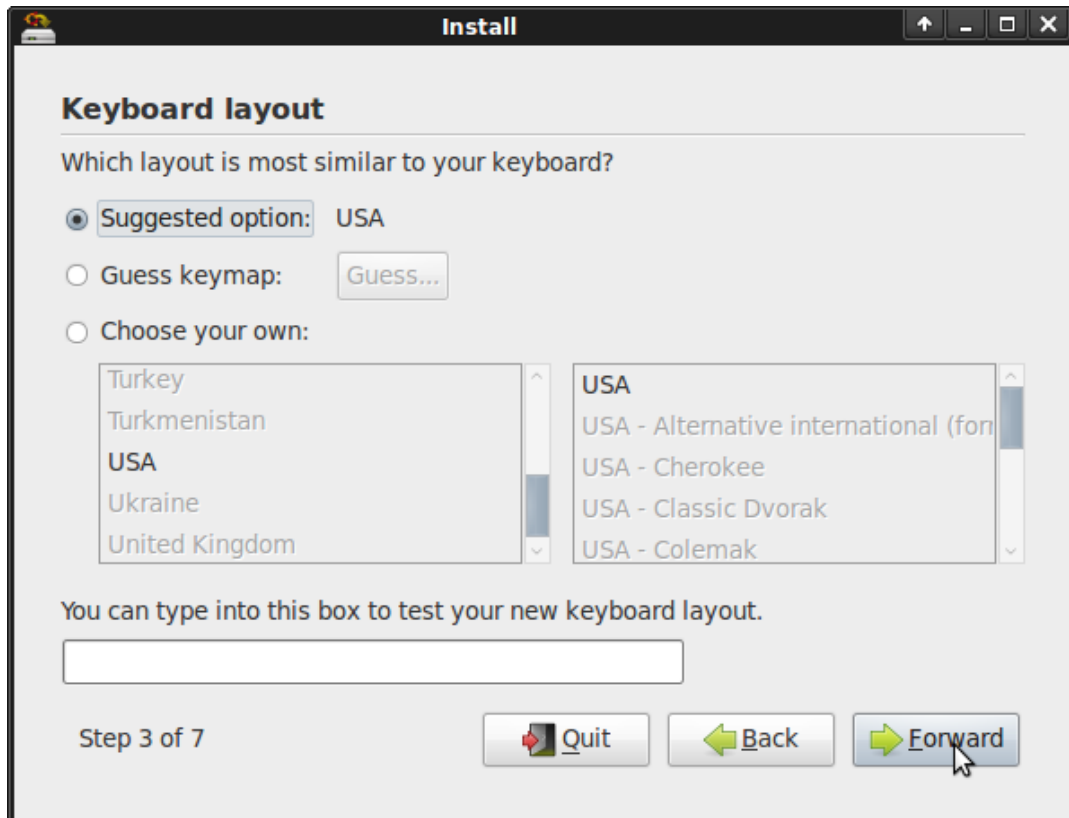
Enter password="user"



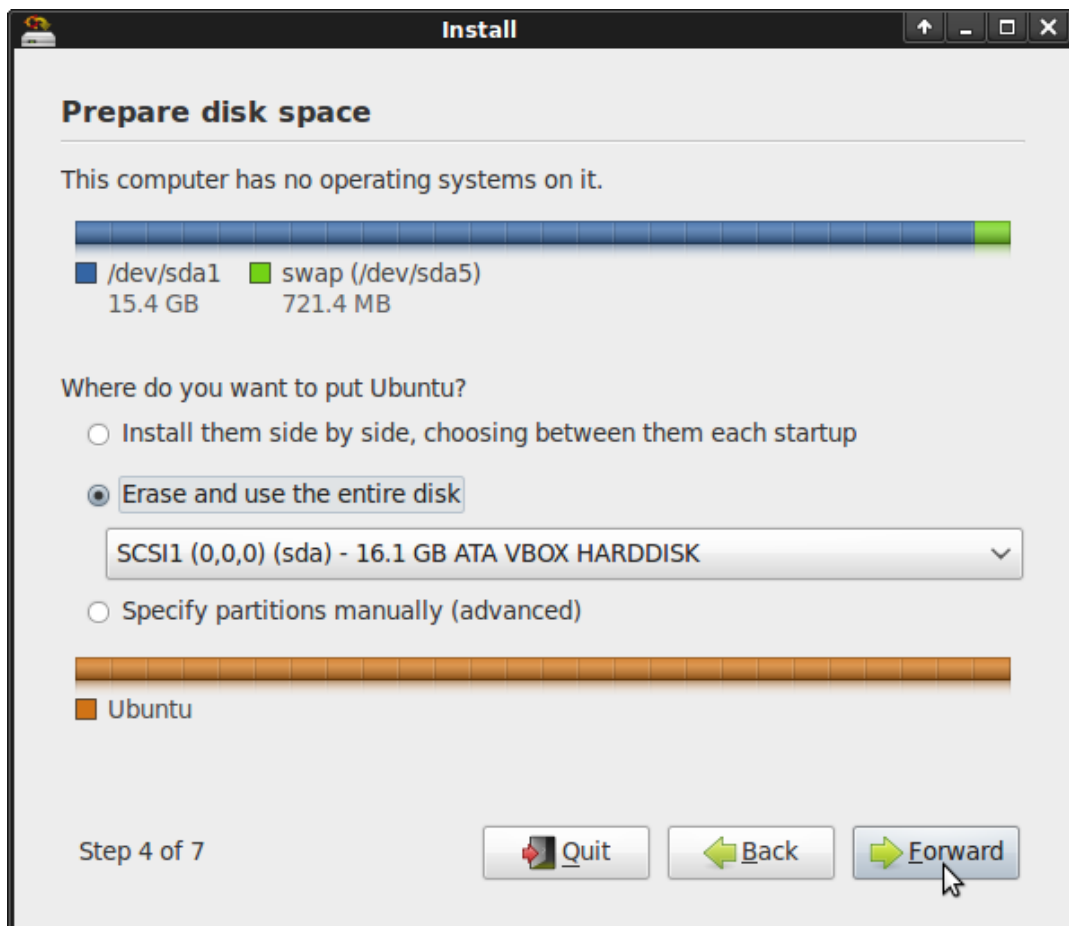
Select language



Select timezone



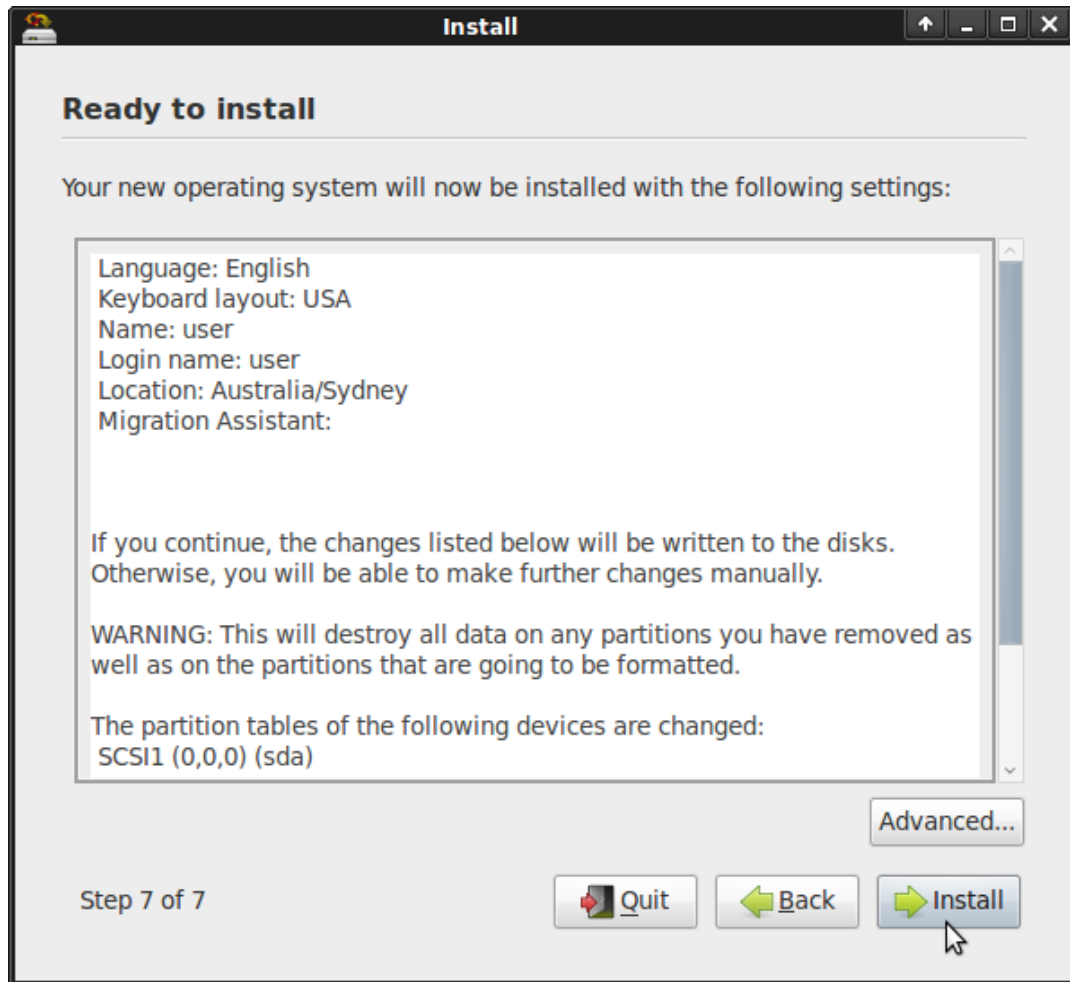
Select keyboard



Specify which disk to want to install on. (Beware, this may delete an existing installed partition).

Defaults for settings are:

- Name = “user”
- username = “user”
- password = “user”
- computer name = “osgeolive”
- Log In automatically



Select *Install*

Go and get a cup of coffee while installation is in progress.

That is it.

Tip: Installation Tips In case you are installing using a username other than “user”, tomcat applications require to have permission to service command as described in <https://trac.osgeo.org/osgeo/ticket/1153>

1.3.3 See Also:

- *Getting started with OSGeoLive*
- *Running in a Virtual Machine*
- *Creating an OSGeoLive Bootable USB flash drive*

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1.4 Running in a Virtual Machine

This Quick Start describes one way to run OSGeoLive within a VirtualBox virtual machine. For other methods, follow links from the “See Also” section below.

1.4.1 Virtual Machine Advantages

- The response speed of a VM is much faster than on the DVD, and typically comparable with installing directly on the host machine.
- All configuration changes, software updates, and saved files are permanent, just like on any “regular” computer. So:
- You can customize and update the system
- You can save your work within the VM
- You can install additional software
- You can backup your virtual machine installation.

1.4.2 System Requirements

- RAM: 2 GB at least. The Ubuntu system runs well with 1 GB of RAM, and you’ll need to keep at least the same amount of memory for your host system. So a total of 2 GB will be needed for smooth operation. Some applications, like GeoServer, needs the virtual machine to have at least 2GB of RAM. So if possible, consider providing 2 GB or more for your virtual machine.
- Spare Hard Disk Space: The virtual disk file (vmdk) from live.osgeo.org unzips to almost 10 GB. You’ll also want more space to allow some room to work on the virtual machine. So 20 GB is a good recommendation.
- CPU: Any CPU will do, but a processor which supports “Virtualization Technology” will be faster. You can check your computer CPU [here](#).

Most machines produced in the last 4-5 years will meet these requirements.

1.4.3 Howto

Downloads

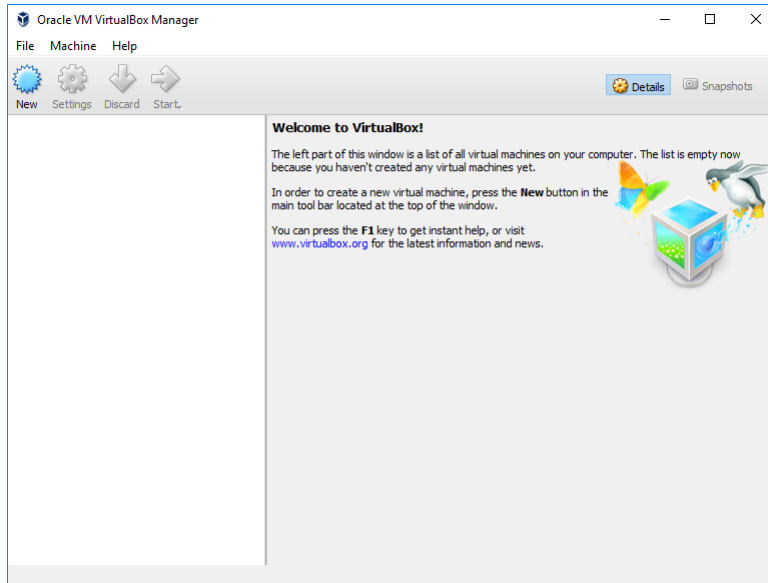
Download [Virtual Box](#) for your platform, and install the software. On Windows run the installer, or on Ubuntu-like Linux systems do the following:

```
apt-get install virtualbox-ose
```

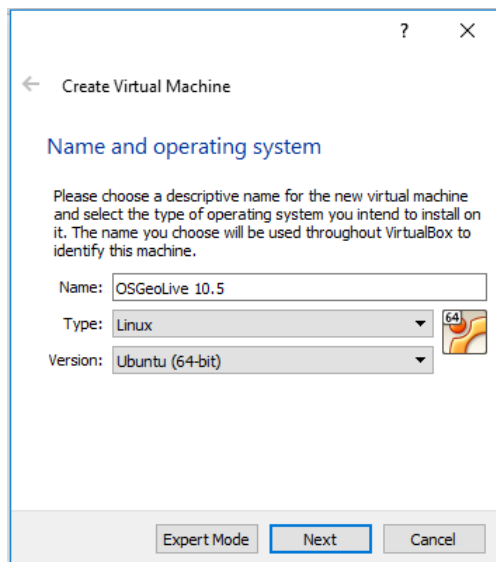
In addition download the OSGeo Virtual disk file (vmdk) from live.osgeo.org. Click on the “Download virtual machine” button. Then unzip the downloaded file (using [7zip](#)).

Create a Virtual Machine

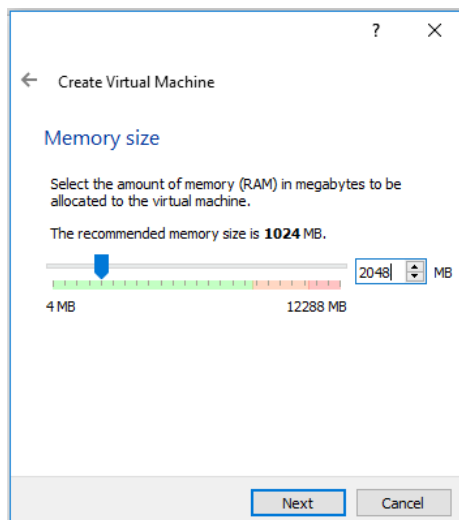
Start the VirtualBox application and click on the New button to create a new VM, and then Next.



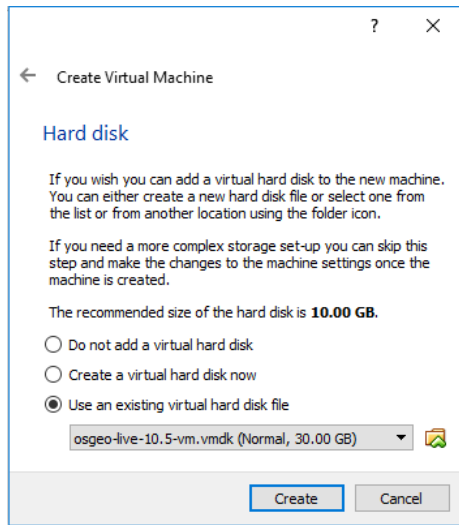
Enter a name such as OSGeoLive, and choose Linux as the “Operating system”, and Ubuntu as the “Version”.



In the next screen set the memory to 1024 MB (or more if your host computer has more than 4GB, like in the screenshot below).

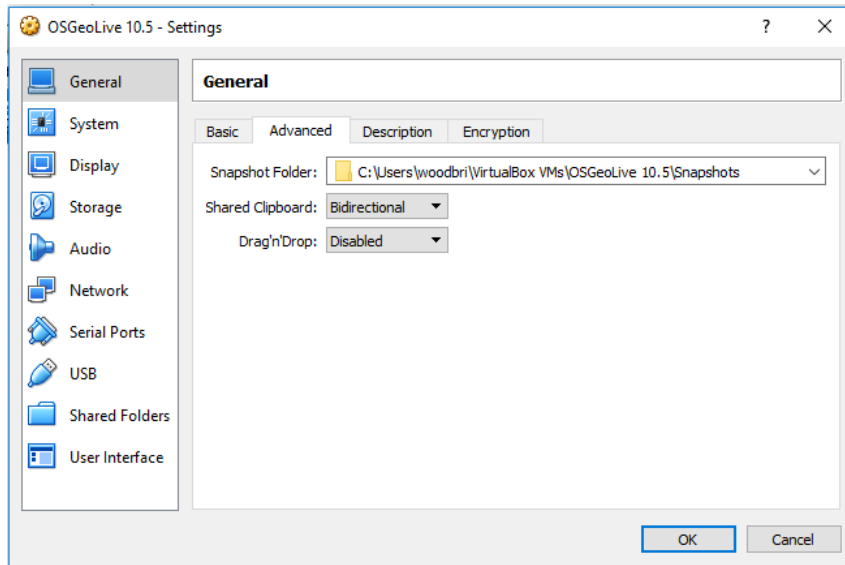


Continue to the next screen and choose “Use an existing virtual hard disk file”. Now click on the button (a folder icon) to browse to where you saved the OSGeoLive vmdk-file. Select this file, press Next and Create.

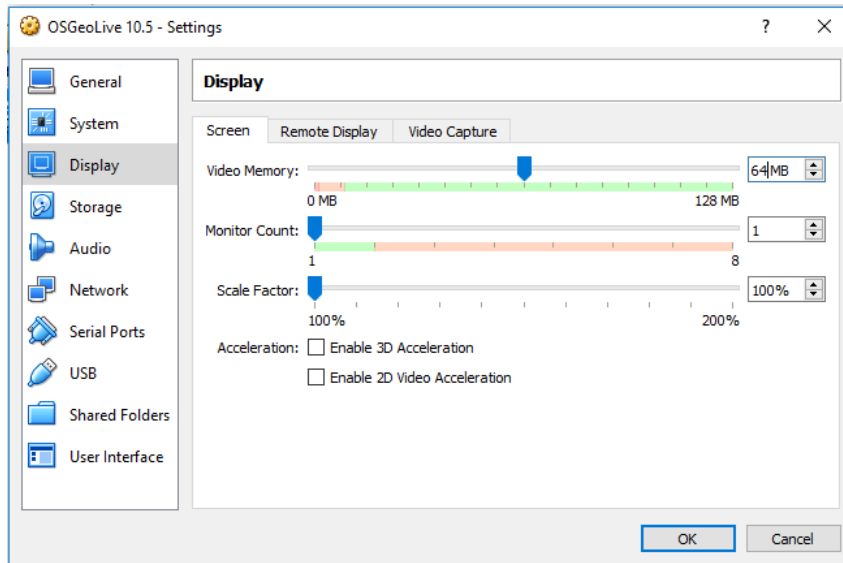


Config tips and tweaks

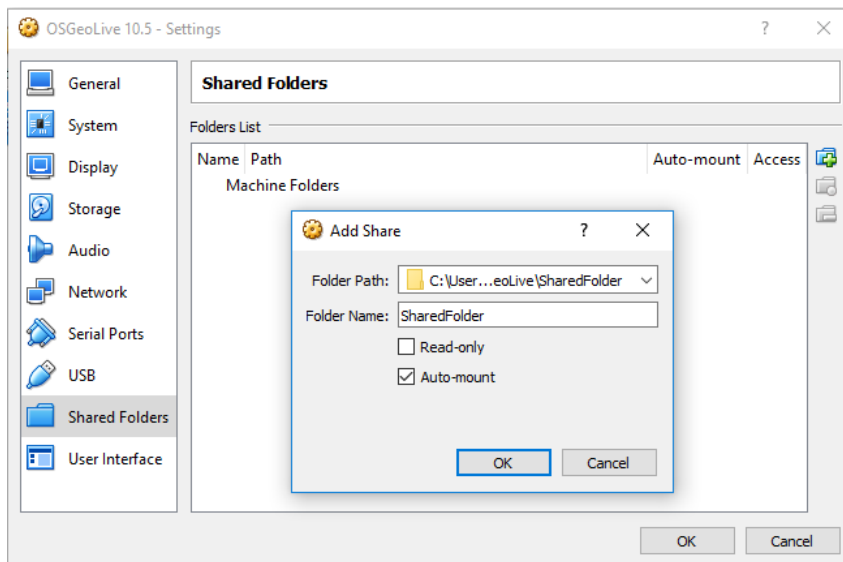
Once the VM is created, click on the Settings button. In the “General” section, go to the Advanced tab, and click to select “Show at top of screen” for the Mini toolbar.



Go to the “Display” section and increase video memory to 32 or 64 MB. In some host operating systems, it may be required to “Enable 3D Acceleration” for display to work properly.



In addition, move to the “Shared Folders” section, and click the “Add folder” (green + icon on the right) to find a directory on your host computer that you wish to share inside the VM.



You can choose to make the shared folder read-only, and auto-mounted. Once the “Folder path” and “Folder name” are defined, click OK, and again OK to finish and close the settings window.

Running the Virtual Machine

Now bootup the VM by clicking the Start (green arrow) button.

You should install the virtualbox guest additions, this will allow you to use full-screen mode.

```
sudo apt-get install --yes virtualbox-guest-dkms  
virtualbox-guest-utils virtualbox-guest-x11
```

When you install the iso on the VM, the username must be set to “user”

The user “user” is not a member of the “users” group on the OSGeoLive virtual machine. This prevents some tools from writing to its data directory and causes some software to fail to start.

The solution is to fix the vmdk with the following one-time procedure:

1. Start a terminal.
2. Run “sudo adduser user users”.

3. Apply this change by starting a new desktop session: either restart the virtual machine or log out and log back in (username “user”, password “user”).

Also once the OSGeo system starts, add yourself to the vboxsf group so that the shared folders (defined above) are accessible by running in a terminal window:

```
user@osgeolive:~$ sudo usermod -a -G vboxsf user
```

In the above example, we defined a Shared Folder path on the host system and named it “GIS” in the VM Settings. The shared folder will appear in the file system under `/media/sf_GIS/`. To mount this folder in the user’s home directory, for example, in a terminal run:

```
user@osgeolive:~$ mkdir GIS
```

```
user@osgeolive:~$ sudo mount -t vboxsf -o uid=user,rw GIS /home/user/GIS
```

Now files on your host machine in the chosen folder will also be available in the VM in the “GIS” folder in user’s home directory.

1.4.4 See Also:

- **OSGeo wiki pages:** [Other ways to create a Virtual Machine](#)
- [Getting started with OSGeoLive](#)
- [Install OSGeoLive to Hard Disk](#)
- [Creating an OSGeoLive Bootable USB flash drive](#)

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1.5 Creating an OSGeoLive Bootable USB flash drive

This quickstart describes the preferred method for creating a Bootable OSGeoLive USB flash drive. Booting from a flash drive is faster than from a DVD, and the USB drive can be configured to store data between sessions (called persistence).

We have found that there are a number of quirks and tricks involved in successfully building a USB drive. We have documented what we know, but there are likely more tricks and issues. Look for latest tips here: https://wiki.osgeo.org/wiki/Live_GIS_Disc_Quick_Start_for_USB

1.5.1 Requirements

- A USB flash drive (at least 4 Gig, 8+ Gig is recommended).
- An OSGeoLive ISO image (downloaded from: [OSGeoLive downloads](#)) or converted from a DVD.
- For a 4 GB USB flash drive, use osgeolive-mini ISO (without Windows and Mac installers), without persistence.
- For a 8+ GB USB flash drive, use either osgeolive-mini ISO, or osgeolive ISO (with Windows and Mac installers). 8+ GB is recommended if you wish to support persistence.

1.5.2 Creating bootable USB drive with dd under Linux

ISO images for OSGeoLive 10.5 and later are *isohybrid* (and for amd64, also support UEFI boot). Under Linux, these images can be written directly to the block device for a USB drive with the `dd` command-line utility:

```
sudo dd if=osgeolive-10.5-amd64.iso of=/dev/sdX bs=4M; sync
```

- `/dev/sdX` is the block device for the USB drive, where X might be b or c.

- Use `lsblk` to list block devices and `dmesg` to see kernel messages identifying the USB drive when it is connected.
- The USB drive should not be mounted.
- `sudo` is not required if the command is run as `root`.

Warning: Be certain to select the correct block device as `dd` will overwrite it without question, even if it is your primary system drive.

1.5.3 Creating bootable USB drive with Ubuntu Startup Disk Creator

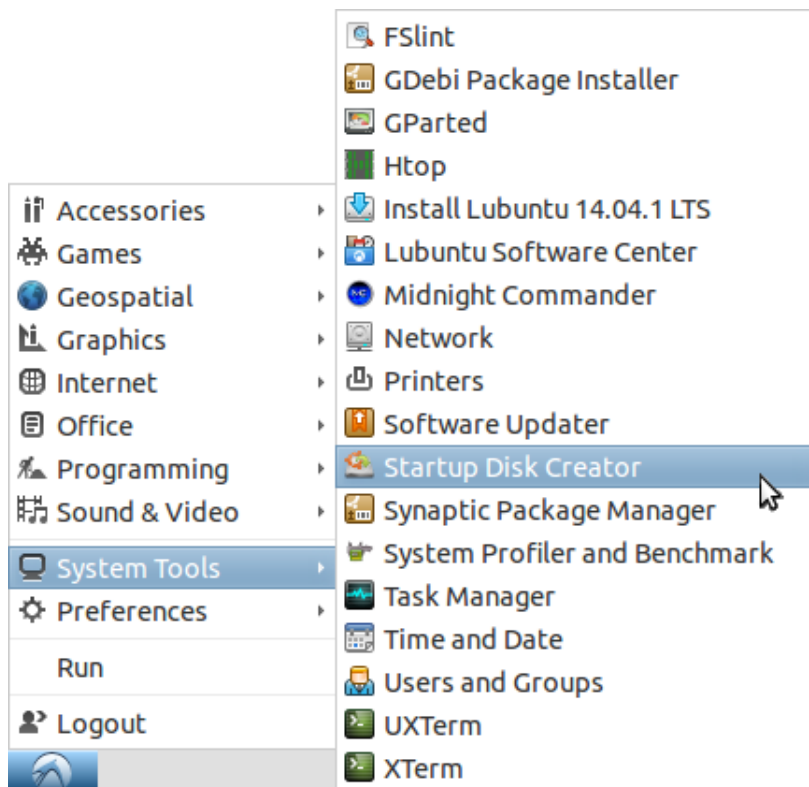
(This is the recommended process for creating a USB. It is applicable to Ubuntu and Ubuntu variants such as OSGeoLive.)

Note: The version of Ubuntu you are running, needs to be the same or newer than the version of Ubuntu being installed onto your USB. If installing OSGeoLive 8.0 onto a USB, then you will need to be running Ubuntu 14.04 or newer.

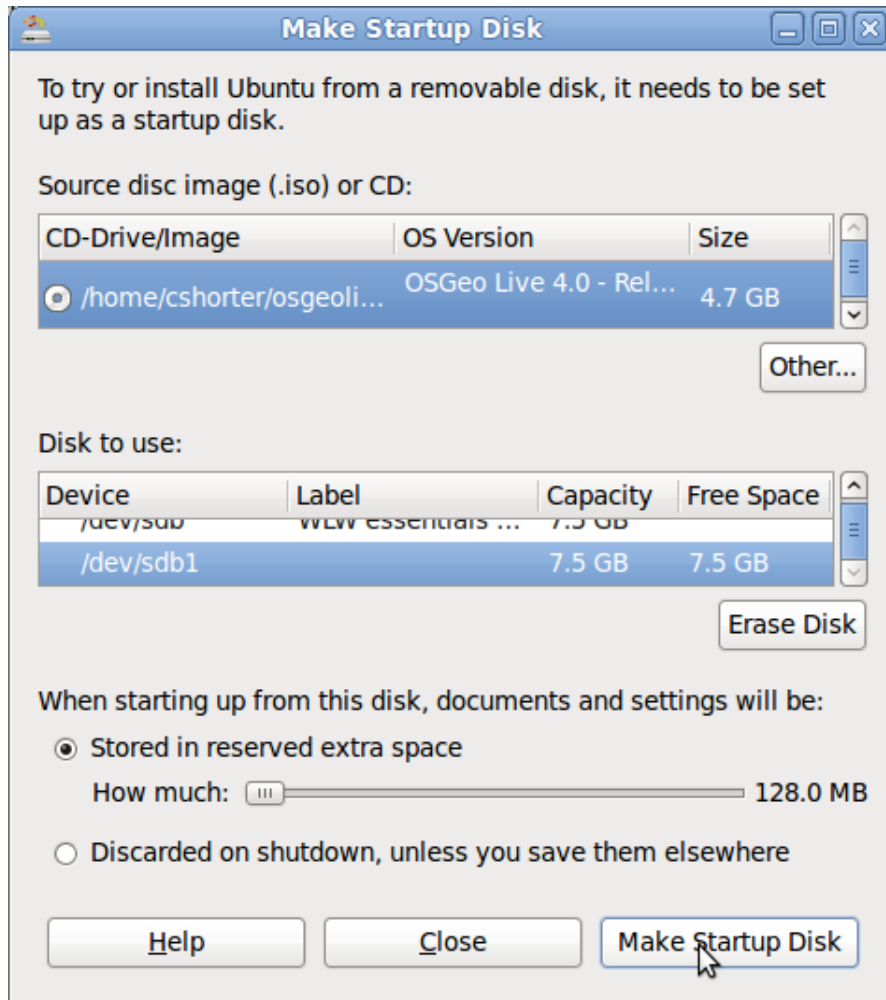
Download `osgeolive` or `osgeolive-mini` to your computer's hard drive.

Boot your computer into a recent Ubuntu/Xubuntu distribution. You can do this by running from an OSGeoLive DVD, as explained in *Getting started with OSGeoLive*.

Insert the USB flash drive into your computer.



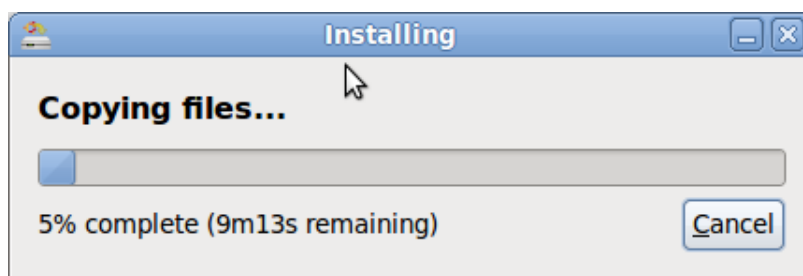
Select *System Tools* → *Startup Disk Creator*, or search for *Startup Disk Creator* from the Unity desktop.



Select the osgeolive or osgeolive-mini ISO Image that you downloaded earlier.

Select the USB flash drive. If you have extra room you might adjust the slider to create persistent storage space on the USB drive (recommended). In order for this option to be available you will need an 8+ GB USB flash drive.

Select *Make Startup Disk*



Wait 20 minutes or so for the USB flash drive to be created.

1.5.4 Booting from the USB drive:

1. Start with the computer off.
2. Insert the USB drive into an open USB port.
3. Power on the Machine and select to boot from USB:
 - Most computers are not set to boot from a USB drive by default.

- When booting, look for a message indicating a Boot Menu (most commonly you press F12)
 - If your computer does not have a boot menu, then boot into your system BIOS. The button to enter BIOS varies by brand and model of computer. If you can't figure out yours try this website that lists many BIOS hotkeys. <https://www.mydigitallife.net/comprehensive-list-of-how-key-to-press-to-access-bios-for-various-oem-and-computer-systems/>
4. Select to boot from the USB device.
- Note, that for some computers you will need to have the USB drive inserted into the computer in order to select it.
 - Note also, the USB drive is often listed under hard drives rather than removable devices.
 - This [Video](#) demonstrates booting from USB.

1.5.5 Run:

Run as per: *Getting started with OSGeoLive*

1.5.6 See Also:

- *Getting started with OSGeoLive*
- *Running in a Virtual Machine*
- *Install OSGeoLive to Hard Disk*
- Alternative USB creation methods and latest tips are collected here: [wiki](#)
- Questions can be directed to our email list: <https://lists.osgeo.org/pipermail/osgeolive/>

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1.6 Running in a Hyper-V Virtual Machine

This Quick Start describes how to run OSGeoLive using Hyper-V, Microsoft's virtualisation software. For other methods, follow links from the "See Also" section below. Hyper-V is available on both Windows Server, and Windows 10 Professional - it is not part of Windows 10 Home.

The advantages of using a virtual machine are the same as those outlined at *Running in a Virtual Machine*. Unfortunately Virtual Box and Hyper-V cannot be run simultaneously. This leaves 2 options - disabling the Hyper-V feature, or configuring a new Hyper-V machine to run OSGeoLive. A free tool [hypervswitch](#) can be used to quickly enable and disable Hyper-V - however it still requires a reboot each time the setting is changed. The rest of this page documents how to configure OSGeoLive to run on Hyper-V.

1.6.1 System Requirements

Hyper-V requirements can be found [here](#). This link also provides information on checking if your machine is compatible using the `systeminfo` command. In summary the host machine needs to have the following hardware requirements:

- RAM: 4 GB minimum
- 64-bit Processor

1.6.2 Downloads and Virtual Machine Conversion

Download the OSGeoLive VirtualBox virtual hard disk (vmdk) by following the links on live.osgeo.org. Once downloaded unzip the downloaded file (using [7zip](#)).

The virtual machine image format for Hyper-V differs from the VirtualBox download. The file therefore has to be converted from vmdk to vhdx. There are currently two conversion options available.

StarWind V2V Converter

Use the [StarWind V2V Converter](#) program. This has a simple user interface allowing you to select the `osgeo-live-XX.X-vm.vmdk` file and convert to a *Microsoft VHDX* image.

Microsoft Virtual Machine Converter 3.0

The second more complicated option is as follows.

1. Download the [Microsoft Virtual Machine Converter 3.0](#) and install.
2. Download the DS File Ops Kit and unzip.
3. Open PowerShell (with administrator rights)
4. Run the following command to get the disk descriptor from the OSGeoLive vmdk. This saves the disk description to the “descriptor1.txt” file.
1. Open this in a text editor (such as Notepad) and comment out the following lines using hashes (this metadata is VirtualBox specific and is not recognised by the converter):

```
#ddb.uuid.image="0247ca9d-f9aa-4910-9e8c-1c14d83a7749"
#ddb.uuid.parent="00000000-0000-0000-0000-000000000000"
#ddb.uuid.modification="81a1d704-3e4a-443d-a5ca-2fd085ba086a"
#ddb.uuid.parentmodification="00000000-0000-0000-0000-000000000000"
#ddb.comment=""
```

2. Run the following command to insert the disk descriptor back into the vmdk file:

```
D:\tools\dsfi.exe .\osgeo-live-11.0-vm.vmdk 512 1024 descriptor1.txt
```

Note: Failing to do the above steps will result in the error “*ConvertTo-MvmcVirtualHardDisk : The entry 0247ca9d-f9aa-4910-9e8c-1c14d83a7749 is not a supported disk database entry for the descriptor.*”

3. Finally run the conversion process:

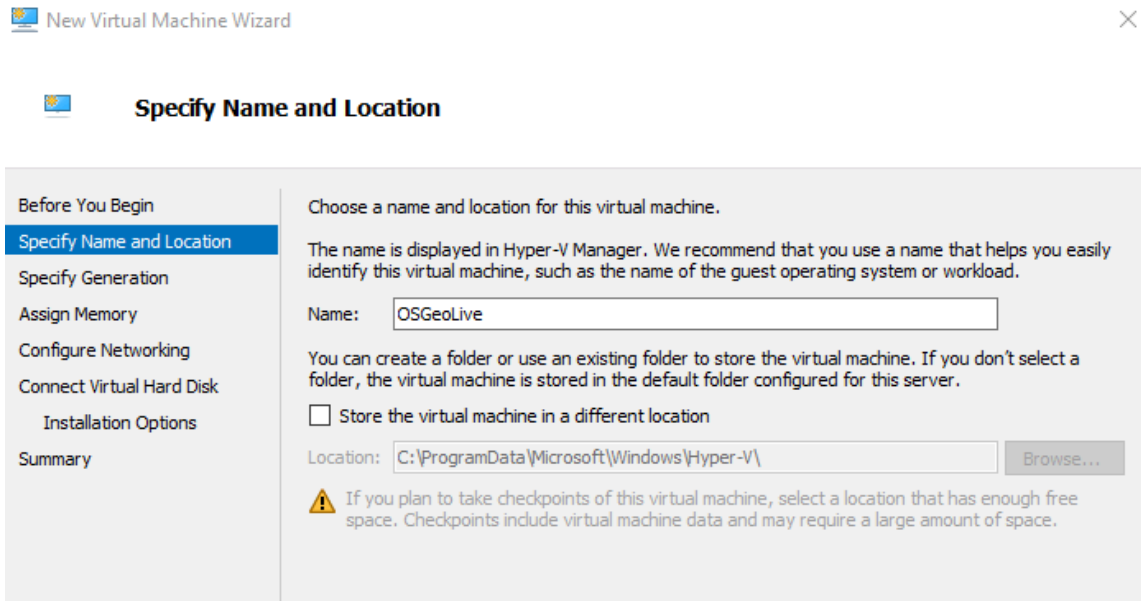
```
Import-Module "C:\Program Files\Microsoft Virtual Machine Converter\MvmcCmdlet.
→psd1"
cd D:\osgeo-live-11.0-vm
ConvertTo-MvmcVirtualHardDisk -SourceLiteralPath .\osgeo-live-11.0-vm.vmdk -
→VhdFormat Vhdx
```

1.6.3 How-To

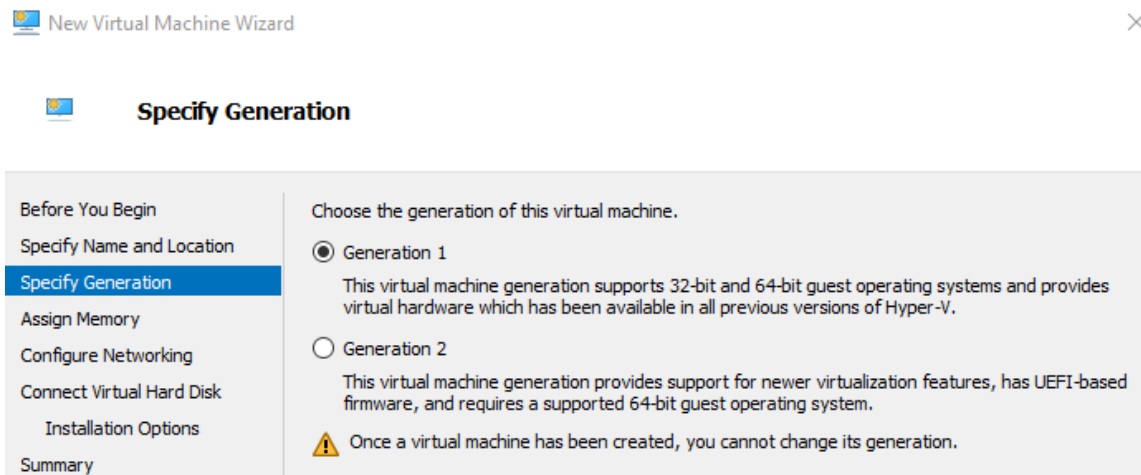
This guide assumes Hyper-V is already installed and enabled - if this is not the case the more typical approach using Virtual Box outlined at [Running in a Virtual Machine](#) can be used.

Create a Virtual Machine

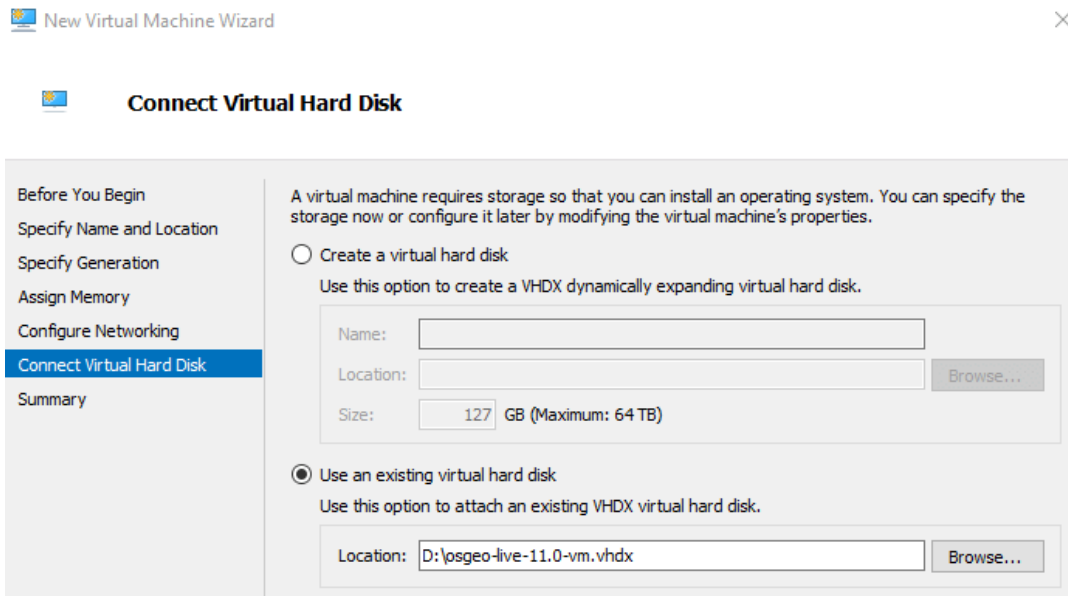
1. Start the Hyper-V Manager application and under Actions select New > Virtual Machine, and then Next. Then enter an appropriate name for the virtual machine.



2. Select “Generation 1” from the Specify Generation options.



3. When assigning memory, you can select “Use Dynamic Memory for this virtual machine”.
4. If you require the virtual machine to have Internet access you will need to set this up on the “Configure Networking” screen.
5. On the “Connect Virtual Hard Disk”, select “Use an existing virtual hard disk” and select the .vhdx file you unzipped earlier.



Running the Virtual Machine

1. Select the virtual machine from the Virtual Machines list
2. Right-click and select “Connect”. You will be prompted to start the machine, and a new “Virtual Machine Connection” window will open.

1.6.4 See Also:

- *Running in a Virtual Machine.*
- **OSGeo wiki pages:** [Other ways to create a Virtual Machine](#)
- *Getting started with OSGeoLive*
- *Install OSGeoLive to Hard Disk*
- *Creating an OSGeoLive Bootable USB flash drive*

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1.7 Command Line basics

When you work with GNU/Linux Operating Systems such as OSGeoLive, Ubuntu, etc., it is good to know how to work on the command line.

Don't worry. It is not difficult to learn and you will discover that it is fun and very powerful.

In this quickstart you will learn some basic commands.

The following commands run from within a Terminal Emulator window.

Start a Terminal Emulator (*QTerminal* currently) from the *Applications* menu in the *System Tools* section. This gives you a Unix shell command prompt.

Contents

- *Where am I?*
- *How to navigate in the file system?*

- *Create a directory*
- *How to create a new file*
- *Show me what is in a directory*
- *Copy files and directories*
- *Who is sudo?*
- *Search and install programs*
- *Services*
- *How to edit files*
- *Owner and access rights*
- *Change the owner with chown*
- *Change access rights with chmod*
- *Things to try*
- *What next?*

1.7.1 Where am I?

`pwd` shows the path of your current location.

```
pwd
/home/user
```

Tip: You can ask all commands for help and get information on how they can be used and find out about additional options.

```
pwd --help
pwd: pwd [-LP]
    Print the name of the current working directory.

Options:
  -L          print the value of $PWD if it names the current working
              directory
  -P          print the physical directory, without any symbolic links

By default, `pwd' behaves as if `-L' were specified.

Exit Status:
Returns 0 unless an invalid option is given or the current directory cannot be
↪ read.
```

1.7.2 How to navigate in the file system?

First you should get to know how the file system under Linux is organized. The file system is organized in a tree. It starts with the `/` known as root directory. All files and directories are under the root directory (`/`).

The current user is “`user`” and has a home directory located at `/home/user`. Anytime you open a terminal window it will start in your home directory (see `pwd`).

You can easily navigate in the file system with the command `cd`.

`cd /` navigated to the root directory `cd /home/user` goes to your home directory same as `cd ~`

`cd ..` moves you one directory to the top, `cd user` goes from your current location to the home directory of user. This is not the same as `/user`

Tip: Use the tab key to autocomplete the path while you are typing.

1.7.3 Create a directory

You have write access in your user-directory. You can create files and directories there. Next we will create a directory for some command line tests.

```
cd ~
mkdir demo - creates the directory demo
cd demo
```

Tip: You have a command history. You can navigate in the history with the arrow up and down key.

1.7.4 How to create a new file

`touch` creates a new empty file.

```
cd ~/demo
touch hello.txt
```

Tip: You can pipe the information from a command to a file i.e. the command history. `history` displays the command history. With the following command it can be saved in a file.

```
history > history.txt
```

1.7.5 Show me what is in a directory

You would like to know more about the content of a directory. `ls` is the program that gives you a lot of information.

- `ls` lists all files and directories
- `ls -l` shows a more detailed list of the files/directories with time, user access rights
- `ls -a` also shows hidden files
- `ls -al` you can combine the different options
- `ls -l` shows only the file names

```
cd ~/demo
ls -l

total 4
-rw-rw-r-- 1 user user  0 Dec 26 16:23 hello.txt
-rw-rw-r-- 1 user user 255 Dec 26 16:24 history.txt
```

1.7.6 Copy files and directories

You can copy files from one location to another.

Copy a file to a new file

```
cp hello.txt hello_again.txt
```

Copy a file to another directory

```
cp hello.txt /home/user/
```

Copy a whole directory to a new location (-R recursive)

```
cp -R /home/user/demo /tmp
```

1.7.7 Who is sudo?

With *sudo* you can do things that you are normally not allowed to. *sudo* runs commands with the rights of the superuser also known as root. With *sudo* you can i.e. install more software, administrate services, change access rights and more fun. You will see the use of *sudo* in some of the following commands.

1.7.8 Search and install programs

Show information about programs.

```
apt show postgres
```

Search for programs

```
apt search postgres
```

Install programs

```
sudo apt-get install sl
```

You will love the program *sl*. Run the new program with *sl* see also *apt show sl*.

1.7.9 Services

Some programmes run as services like PostgreSQL, tomcat or Apache Webserver. You can start or stop the services.

Restart your Apache Service

```
sudo service apache2 restart  
  
sudo service apache2 --help  
  
sudo service apache2 status
```

1.7.10 How to edit files

You can either edit files in the terminal or open them with an external program like Geany.

In the terminal window you can use the *vim* editor (Vi IMproved). *vim* is very powerful and has many options.

See also

- <https://help.ubuntu.com/community/VimHowto>
- https://vim.rtorr.com/lang/en_en

Open a file with *vim*:

```
vim /home/user/demo/hello.txt
```

- press *i* to switch to the input mode
- *ESC* leaves the input mode
- *:w* saves your changes
- *:wq* saves your changes and closes the file
- *:q* closes the file
- *:q!* closes the file without saving

1.7.11 Owner and access rights

Access rights define whether a *user* or *group* or *others* have access to a file and what sort of access is given. You can have *read*, *write* or *execute* access.

Directories or files have an owner and a group definition. By default the creator of a file/directory is the owner. But this definition can be changed. You will learn this in the next section.

You can show the owner and group via *ls -l*

```
cd /home/user/demo
ls -l
-rw-rw-r-- 1 user user 122 Dec 26 16:11 history.txt
```

- the initial character can be *-* for a file or *d* for directory
- *user* is defined as the owner and the group

Access rights are listed at the beginning of the row:

- *r* read
- *w* write
- *x* execute
- first 3 letters for the owner
- then next 3 letters for the group
- followed by the last 3 letters for others

1.7.12 Change the owner with *chown*

```
sudo chown -R user:www-data /var/www/html/TBD
```

- first pass the user then the group - like *user:www-data*
- *-R* recursive

1.7.13 Change access rights with *chmod*

```
sudo chmod -R 777 /var/www/html/TBD
```

- *777* everyone can do everything

- *-R* recursive
- 1. number: owner (u)
- 2. number: group (g)
- 3. number: other (o)
- 4 read
- 2 write
- 1 execute
- 660 - owner and group are allowed to read and write, other have no rights
- 744 - owner can do everything, group and others can only read

or use it like this

```
sudo chmod -R u+rwX /var/www/html/TBD
```

- u = user
- g = group
- o = other
- a = all
- +/- right: r = read / w = write / x = execute

1.7.14 Things to try

Here are other commands you may try.

- grep - search for a pattern in a text
- history | grep cd
- rm - remove a file
- rmdir - remove an empty directory
- mv - rename/move
- head - show the beginning of a file
- tail - show the end of a file
- find - search for files in a directory hierarchy
- locate - find files by name

1.7.15 What next?

You have learned some important commands and information to work with the command line. Hopefully you have discovered how powerful the command line is.

- <https://ubuntu.com/tutorials/command-line-for-beginners#1-overview>
- https://en.wikipedia.org/wiki/Category:Standard_Unix_programs

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1.8 Contact Us

OSGeoLive development is coordinated via email and internet chat (IRC) as detailed on the [OSGeoLive Wiki](#).

1.9 Disclaimer

This Live GIS disc and virtual-machine has been put together by members of the OSGeo community to showcase their favourite Free and Open Source (FOSS) geospatial software. We've included a number of non-OSGeo software packages, from both the spatial and non-spatial realms, which we hope you will find to be as useful as we do. The OSGeo Foundation does not recommend or guarantee any associated software, projects, or companies found within.

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1.10 Community Support

If you have any questions, comments, or run into any problems, please drop us a note on [our mailing list](#).

Searchable archives of the mailing list are hosted by [Nabble](#).

IRC users might try the #osgeolive or #osgeo channel at Freenode.net for real-time assistance. You also can meet us at Slack, Matrix or Glitter.

A wealth of information is available on our [Wiki site](#), and a [bug and wish tracking system](#) is also available.

Stay tuned and follow OSGeoLive on Twitter [@osgeolive](#).

1.11 Commercial Support

Most packaged applications have both community and commercial support offerings for them. Refer to specific application descriptions linked from the Contents for details.

In addition, there are a large number of consultancy firms world wide who provide support for OSGeo member projects. See <https://www.osgeo.org/service-providers/> for one that meets your needs.

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1.13 Download

The latest stable release is @OSGeoLiveDoc_NAME@ @OSGeoLiveDoc_VERSION_MAJOR@. @OSGeoLiveDoc_VERSION_MINOR@ and can be downloaded from:

https://sourceforge.net/projects/osgeo-live/files/@OSGeoLiveDoc_VERSION_MAJOR@. @OSGeoLiveDoc_VERSION_MINOR@

Picking the right image for you:

osgeolive iso: 4.0 GB

A Ubuntu based bootable image, which can be copied to an 8 Gig USB thumb drive (faster and recommended) or DVD (cheaper). It can also be used to build a virtual machine from scratch.

osgeolive-vm: 3.1 GB

This is a pre-made virtual machine (.vmdk), based on osgeolive, suitable for use in VirtualBox, VMWare, KVM and other virtual machine applications. It has been compressed using [7-Zip](#).

amd64 or i386 architecture

ISO images are available for recent amd64 hardware (recommended) as well as older i386 hardware.

md5 checksum

You can use the md5 checksum to verify the image downloaded successfully.

System Requirements

Minimum suggested system resources: 1 GB RAM (2 GB are better for trying Java based applications), 1GHz i386 or amd64 compatible CPU. No hard drive required. Mac users will benefit from a 3-button USB mouse.

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The Open Source Geospatial Foundation (OSGeo) provides the primary development & hosting infrastructure and personnel for the project, and for many of the soft-



ware teams which contribute to it.

Information Center for the Environment at the University of California, Davis provides hardware resources and development support to the OSGeo-



**National
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Live project.

Remote Sensing Laboratory at the National Technical University of Athens, provides hardware resources and development support to the OSGeoLive project.

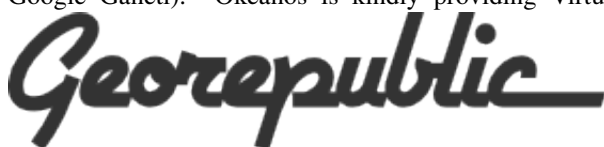


The DebianGIS and UbuntuGIS projects provide and quality-assure



many of the core packages.

Okeanos is the Greek Academic cloud service (IaaS) which is providing virtualized computing resources free of charge to the Greek Universities and public Research Centres. Okeanos is build on top of existing proven open source software (e.g. Synnefo, Google Ganeti). Okeanos is kindly providing Virtual Machines for building the OSGeoLive iso images.



Georepublic is a Geolocation Technology Company, that embraces the idea of Free Software, and provide support and custom development for Open Source GIS software.



1.14 The OSGeo Foundation

Empower everyone with open source geospatial

The **Open Source Geospatial Foundation (OSGeo)** is a not-for-profit organization whose mission is to foster global adoption of open geospatial technology by being an inclusive software foundation devoted to an open philosophy and participatory community driven development.

OSGeo outreach and activities include:

- **Local Chapters:** Local, regional and language groups support grass roots activities.
- **GeoForAll:** Over 100 educational labs from around the world who work with partners to make geospatial education and opportunities accessible to all.
- **OSGeoLive:** A distribution of established geospatial open source software, pre-configured with sample data and quickstarts, ready to try out.
- **FOSS4G:** Annual, international conference for *Free and Open Source Software for Geospatial*, as well as many regional and local events.

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Mirko Cardoso	cardoso mirko gmail com	Switzerland	Doscio
Nathaniel V. Kelso	nathaniel kelsocartography com	USA	?
Ned Horning	horning amnh org	USA	nedhorning
Nicolas Roelandt	baka niko gmail com	France	Roelandtn
Oliver Tonnhofer	olt omniscale de	Germany	olt
Patric Hafner	patric.hafner geops de	Germany	phaf
Paul Meems	p.meems topx-group nl	The Netherlands	pmeems

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Table 1.2 – continued from previous page

Name	Email	Country	Osgeo_id
Pirmin Kalberer	pka sourcepole com	Switzerland	pka
Regina Obe	lr pcorp us	USA	robe
Ricardo Pinho	rpinho_eng yahoo com br	Portugal	rpinho
Roald de Wit	osgeo rdewit net	Australia	rdewit
Roberto Antolin	rantolin geo gmail com	Spain	rantolin
Robin Lovelace	rob00x gmail com	UK	robinlovelace
Ruth Schoenbuchner	ruth.schoenbuchner csgis.de	Germany	rscsgis
Scott Penrose	scottp dd com au	Australia	scottp
Sergio Baños	sbc saig es	Spain	sbcalvo
Sergey Popov	sergobot256 gmail com	Russia	sergobot
Seth Girvin	sethg geographika co uk	France/Ireland/UK	sethg
Simon Cropper	scropper botanicusaustralia com au	Australia	simoncropper
Simon Pigot	simon.pigot csiro au	Australia	simonp
Stefan A. Tzeggai	gp geopublishing org	Germany	alfonx
Stefan Hansen	stefan.hansen lisasoft com	Australia	shansen
Stefan Steiniger	sstein geo uzh ch	Canada/Chile	steintaer
Stephan Meissl	stephan meissl name	Austria	schpidi
Steve Lime	sdlime gmail com	USA	sdlime
Takayuki Nuimura	nekogahora gmail com	Japan	nuimura
Thierry Badard	tbadard spatialytics com	Canada	tbadard
Thomas Gertin	tgertin vt edu	USA	tgertin
Thomas Gratier	thomas gratier gmail com	France	thomasg
Tom Kralidis	tomkralidis gmail com	Canada	tomkralidis
Trevor Wekel	trevor_wekel otxsystems com	Canada	trevorwekel
Matthias Streulens	matthias.streulens geomajas org	Belgium	streulma
Victor Poughon	victor.poughon cnes fr	France	poughov
Vlad Merticariu	vkadmerti gmail com	Germany	vmerticariu
Zoltan Siki	siki agt bme hu	Hungary	Siki

1.16 Translators

Language	i18n code	Name	Country	Email	Osgeo_id
Catalan	ca	Òscar Fonts	Spain	oscar.fonts gmail com	oscarfonts
Catalan	ca	Raf Roset	Spain	rafroset gmail com	
Catalan	ca	Anna Muñoz	Spain	a.munoz.b gmail com	
Catalan	ca	Cristhian Pin	Spain	cpinperez gmail com	
Catalan	ca	Marc Torres	Spain	geoinquiet gmail com	
Catalan	ca	Assumpció Termens	Spain	atermens gmail com	
Catalan	ca	Estela Llorente	Spain	estela.llorente gmail com	
Catalan	ca	Roger Veciana	Spain	rveciana gmail.com	
German	de	Astrid Emde	Germany	astrid emde where-group com	astrid_emde
German	de	Daniel Kastl	Germany	daniel georepublic de	danielkastl

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Table 1.3 – continued from previous page

Language	i18n code	Name	Country	Email	Osgeo_id
German	de	Dominik Helle	Germany	helle omniscala de	
German	de	Eva Peters	Germany	eva.peters geops de	gevos
German	de	Frank Gasdorf	Germany	fgdrf users.sourceforge.net	fgdrf
German	de	Jakob Miksch	Germany	jakob miksch pos- teo eu	Magicgate
German	de	Lars Lingner	Germany	lars lingner eu	gislars
German	de	Otto Dassau	Germany	dassau gbd-consult de	dassau
German	de	Ruth Schoenbuchner	Germany	ruth schoenbuchner csgis de	
German	de	Thomas Baschetti	Germany	info thomas- baschetti de	tbaschett
Greek	el	Angelos Tzotsos	Greece	tzotsos gmail com	kalxas
Greek	el	Christos Iossifidis	Greece	chiossif gmail com	chiossif
Greek	el	Argyros Argyridis	Greece	arargyridis gmail com	Argy7
Greek	el	Aikaterini Kapsampeli	Greece	kapsamp mail ntua gr	topometal
Greek	el	Maria Vakalopoulou	Greece	mariavak8 hotmail com	mariavak
Spanish	es	Agustín Díez	Spain	adiez uv es	
Spanish	es	David Mateos	Spain	porquewhich hotmail com	
Spanish	es	Hernan Olivera	Argentina	lholivera gmail com	hernanolivera
Spanish	es	Javier Sánchez	Spain	jsgisdev gmail com	jsanchez
Spanish	es	Jesús Gómez	Spain	je_gomez terra es	
Spanish	es	Jorge Arévalo	Spain	jorge.arevalo deimos-space com	jorgear
Spanish	es	Jorge Sanz	Spain	jsanz osgeo org	jsanz
Spanish	es	José Antonio Canalejo	Germany	jacanalejo yahoo es	
Spanish	es	Mauricio Miranda	Argentina	mmiranda xoom- code com	
Spanish	es	Mauricio Pazos	Spain	mauricio.pazos gmail com	mpazos
Spanish	es	Òscar Fonts	Spain	oscar.fonts gmail com	oscarfonts
Spanish	es	Pedro-Juan Ferrer	Spain	pferrer osgeo org	pferrer
Spanish	es	Roberto Antolín	Spain	rantolin.geo gmail com	
Spanish	es	Samuel Mesa	Colombia	samuelmesa gmail com	
Spanish	es	Valenty González	Venezuela	vgonzalez gvsig com	gvalenty
Spanish	es	Lucía Sanjaime	Spain	llusancal gmail com	
Spanish	es	Andrea Yanza	Columbia	andreavyanzah gmail com	
Spanish	es	Diego González	Spain	iberdiego gmail com	
Spanish	es	Nacho Varela	Spain	nachouve gmail com	

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Table 1.3 – continued from previous page

Language	i18n code	Name	Country	Email	Osgeo_id
Spanish	es	Mario Andino	Paraguay	armra hotmail es	
Spanish	es	Virginia Vergara	Mexico	vicky at georepub- lic dot de	cvvergara
French	fr	Thomas Gratier	France	thomas gratier gmail com	thomasg
French	fr	Christophe Tufféry	France	c tuffery gmail com	ctuffery
French	fr	Marc-André Barbeau	Canada	mbarbeau mapgears com	mbarbeau
French	fr	Etienne Delay	France	etienne delay gmail com	8449
French	fr	Erika Pillu	France	erika pillu gmail com	erikapillu
French	fr	Nicolas Roelandt	France	baka niko gmail com	roelandtn
French	fr	Hugo Roussaffa	France	hugoroussaffa gmail com	Hugoroussaffa
Hungarian	hu	Zoltan Siki	Hungary	siki agt bme hu	siki
Indonesian	id	M Iqnaul Haq Siregar	Indonesia	iqnaulhaq gmail com	iqna
Indonesian	id	Andry Rustanto	Indonesia	rustanto.id gmail com	andry
Italian	it	Alessandro Furieri	Italy	a.furieri lqt it	
Italian	it	Antonio Falciano	Italy		
Italian	it	Diego Migliavacca	Italy	diego.migliavacca gmail com	diegom
Italian	it	Elena Mezzini	Italy		
Italian	it	Giuseppe Calamita	Italy		
Italian	it	Luca Delucchi	Italy	lucadeluge gmail com	lucadelu
Italian	it	Marco Puppini	Italy	puppingeo gmail com	
Italian	it	Marco Curreli	Italy	marcocurreli tiscali it	marcocur
Italian	it	Margherita Di Leo	Italy	dileomargherita gmail com	madi
Italian	it	Massimo Di Stefano	Italy	massimodisasha gmail com	
Italian	it	Matteo De Stefano	Italy		mdlux
Italian	it	Pasquale Di Donato	Italy	pasquale.didonato gmail com	
Italian	it	Roberta Fagandini	Italy		
Italian	it	Marco Minghini	Italy	marco.minghini86 gmail com	MarcoMinghini
Italian	it	Antonio Rotundo	Italy		
Japanese	ja	Haruyuki Seki	Japan	hal georepublic.co jp	
Japanese	ja	Nobusuke Iwasaki	Japan	wata909 gmail com	
Japanese	ja	Toshikazu Seto	Japan	tosseto gmail com	
Japanese	ja	Yoichi Kayama	Japan	yoichi.kayama gmail com	
Japanese	ja	Takayuki Nuimura	Japan	nekogahora gmail com	nuimura

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Table 1.3 – continued from previous page

Language	i18n code	Name	Country	Email	Osgeo_id
Japanese	ja	Hirofumi Hayashi	Japan	hayashi apptec co jp	
Japanese	ja	Ko Nagase	Japan	nagase georepublic co jp	sanak
Japanese	ja	Taro Matsuzawa	Japan	taro georepublic co jp	
Japanese	ja	Hiroshi Miura	Japan	miurahr osmf jp	miurahr
Korean	kr	Hyeyeong Choe	Korea	hychoe ucDavis.edu	hychoe
Polish	pl	Milena Nowotarska	Poland	do.milenki gmail com	milenan
Polish	pl	Damian Wojsław	Poland	damian wojslaw pl	trochej
Russian	ru	Alexander Bruy	Ukraine	voltron ua.fm	Voltron
Russian	ru	Alexander Muriy	Russia	amuriy gmail.com	amuriy
Russian	ru	Alexey Ardyakov	Russia	ardjakov rambler.ru	Ariki
Russian	ru	Andrey Syrokomskiy	Ukraine	signmotion gmail.com	Andrey Syr
Russian	ru	Anton Novichikhin	Russia	novi-mail mail.ru	novia
Russian	ru	Daria Svidzinska	Ukraine	d.svidzinska gmail.com	darsvid
Russian	ru	Denis Rykov	Russia	rykovd gmail.com	Denis Rykov
Russian	ru	Dmitry Baryshnikov	Russia	polimax mail.ru	Bishop
Russian	ru	Evgeny Nikulin	Russia	nikulin.e gmail.com	yellow-sky
Russian	ru	Ilya Filippov	Russia	filip83pov yandex.ru	bolotoved
Russian	ru	Grigory Rozhentsov	Russia	grozhentsov gis-pro.ru	grozhentso
Russian	ru	Maxim Dubinin	Russia	sim gis-lab.info	Maxim Dubinin
Russian	ru	Nadiia Gorash	UK	Nadiia.gorash gmail.com	Nadiia
Russian	ru	Pavel	Russia	pashtet51 gmail.com	Pavel
Russian	ru	Sergey Grachev	Russia	ergo list.ru	ergo
Russian	ru	Vera	Russia	vera probki.net	Geo-U-Piter
Russian	ru	Alexander Kleshnin	Russia	a.hast mail ru	HasT
Russian	ru	kuzkok	Russia	kuzkok gmail.com	kuzkok
Chinese	zh	Bu Kun	China	bukun osgo.cn	bukun
Chinese	zh	Xianfeng Song	China	song.osgeo gmail com	
Chinese	zh	Jing Wang	China	wangjing-2008-jing 163 com	
Chinese	zh	Zhengfan Lin	China	public t lin gmail com	tanner
Swedish	sv	Anne Elise Ylinen		aeYlinen gmail.com	
Romanian	ro	Ionut Ungurianu	Romania	ionutungurianu gmail com	iungurianu
Romanian	ro	Alin Deneanu	Romania	alin.deneanu gmail com	alindeneanu

@OSGeoLiveDoc_PROJECTS_LOGOS@

@OSGeoLiveDoc_PROJECTS_VERSIONS@



1.17 The OSGeo Foundation

Empower everyone with open source geospatial

The **Open Source Geospatial Foundation (OSGeo)** is a not-for-profit organization whose mission is to foster global adoption of open geospatial technology by being an inclusive software foundation devoted to an open philosophy and participatory community driven development.

OSGeo outreach and activities include:

- **Local Chapters:** Local, regional and language groups support grass roots activities.
- **GeoForAll:** Over 100 educational labs from around the world who work with partners to make geospatial education and opportunities accessible to all.
- **OSGeoLive:** A distribution of established geospatial open source software, pre-configured with sample data and quickstarts, ready to try out.
- **FOSS4G:** Annual, international conference for *Free and Open Source Software for Geospatial*, as well as many regional and local events.

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The Open Source Geospatial Foundation Email: info at osgeo.org

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CHAPTER 2

Presentation

A half hour [presentation](#), highlighting all OSGeoLive applications, is available with slides, script, and [abstract](#).

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