

solusproject

User Guide

Welcome to the User Guide of The Solus Project's Solus Operating System.

This guide will walk you through the installation and usage of Solus.

Release 1 - January 10th, 2015

Preface

Solus is built by contributors volunteering their time and resources to create this free and open source operating system. We are grateful for everyone's contributions and love to continuously provide support and improve Solus.

If you feel you have benefited from the use of Solus, we encourage you to help support the Solus Project and our mission.

To see how you can support the project, go to:

<https://solus-project.com/support/>

Sincerely,
Solus Project Team

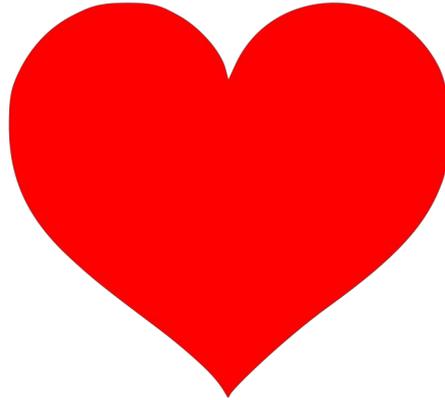


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Installation

Preparing to Install

Getting the ISO

The first step to installing Solus is acquiring the correct media. The Solus Project provides ISO images, which contain the contents of the Solus Operating System for installing.

You can download a Solus ISO by going to our [Download](#) page. We recommend using the latest **stable** release of Solus, which is currently 1.0.

Note: If you are a supporter on our [Patreon](#), we provide early access to new builds and features. If obtaining access to new builds early interests you, as well as supporting development, support us on Patreon!

Getting the Right Tool

There is a multitude of tools enable the writing of our ISO image to DVDs or USB thumb drives. Below, we break it apart across Linux and Windows.

Linux

DVD

We recommend using [Brasero](#) for writing the ISO to a DVD.

USB

Graphical Tool

We recommend using [Gnome Multi-Writer](#). Please note that unetbootin will **not** work.

Command-Line

For those comfortable with the command-line / terminal, we will walk you through using [dd](#).

Windows

DVD

You can easily burn an ISO image to a DVD, on Windows 7 and newer, by using Window's built-in file manager (Explorer), right-clicking on the ISO image file, and clicking Burn disk image.

USB

You can easily burn an ISO image to a USB by using graphical tool [Rufus](#).

Writing the ISO

To write the ISO, you will need:

1. Either a blank DVD or a USB drive larger than 1GB.
2. If using a USB, the ability to boot from the USB.
3. ISO from the Getting the ISO section

Linux

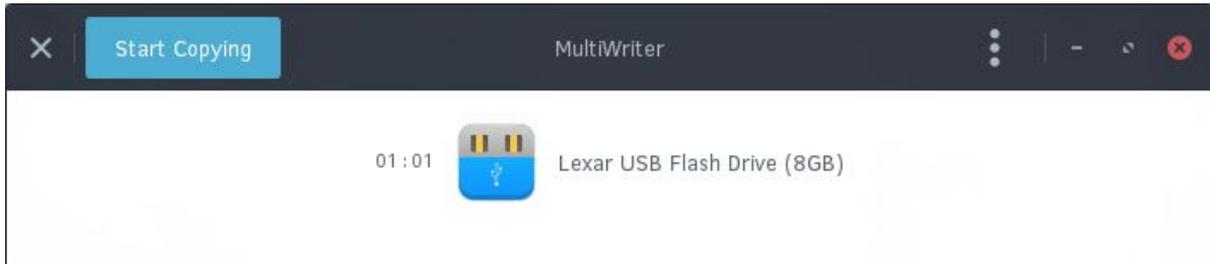
DVD

1. Insert blank DVD (DVD-R or DVD+RW is suitable) into your DVD writer.
2. Open Brasero.
3. Select the option "Burn image".
4. Click the "Click here to select a disc image" button and using the file dialog, choose the ISO.
5. Ensure the correct DVD is selected in the "Select a disc to write to".
6. Click Burn and wait.
7. Upon seeing "Image successfully burned to DVD", click Close.

USB

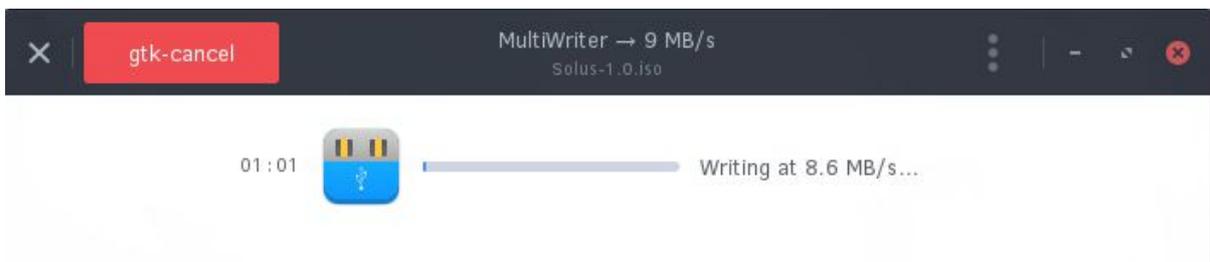
Graphical Tool

Upon opening Gnome MultiWriter, you will likely be shown a window similar to the one below, in the event your USB drive is already plugged in.



If your USB drive is not plugged, you will be prompted with an image indicating to plug it in.

Next, click the Start Copying button, and you will be prompted to select the ISO. Choose the ISO you downloaded in the [Getting the ISO](#) section. The USB will automatically be written to.



Upon completion, you will be prompted with the following dialog and your USB is now ready for use.



Command-Line

Please follow the steps below, which guide you through installation using the utility `dd`:

1. Insert your USB drive in your computer and open your Terminal.
2. Type `lsblk` into your Terminal. It should output something along the lines of:

```
NAME MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
sda   8:0    0 111.8G 0 disk
├─sda1 8:1    0   350M 0 part
├─sda2 8:2    0  39.7G 0 part
└─sda3 8:3    0  71.8G 0 part /
sdb   8:64   1   7.5G 0 disk
├─sdb1 8:65   1   712M 0 part
└─sdb2 8:66   1   17.2M 0 part
```

3. You will see one disk, in my case `/dev/sdb`, that is roughly the size of my USB Drive. Yours should be similar (**difference being in size**). Write this device down somewhere.
4. Locate the downloaded ISO. It will most likely be in your Downloads folder. In the event that it is, type: `cd ~/Downloads`

If it is not in your Downloads folder, use `cd` to navigate to the correct directory.

5. **Dangerous Step:** This is where we **overwrite** the contents of your USB drive so please ensure you identified the **current** drive in `lsblk` stage above. My command is below, however you may need to replace `sdb` with the drive we located above:

```
sudo dd if=Solus-1.0.iso of=/dev/sdb bs=1M;sudo sync;sudo eject /dev/sdb
```

This will write the contents of the ISO to the thumb drive so you can boot it and also make sure the data is synchronised so you can eject the USB safely.

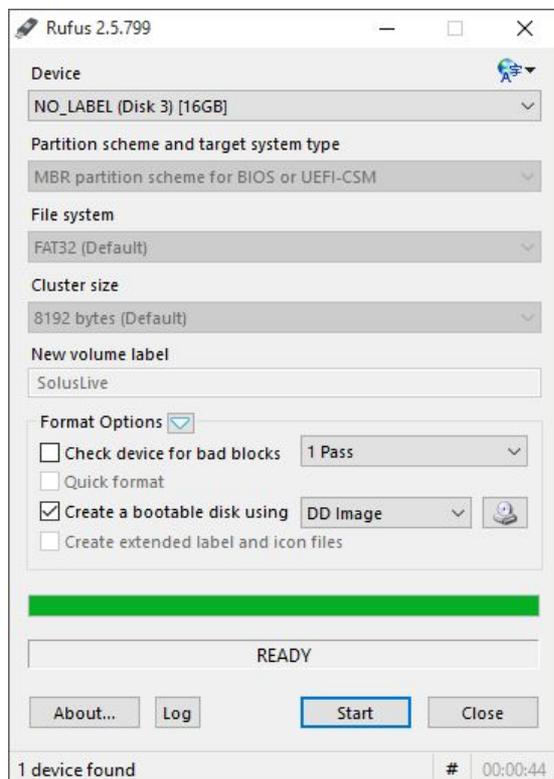
Windows

DVD

1. Open Window's built-in file manager (Explorer).
2. Right click on the ISO image file and clicking Burn disk image.
3. Select the correct Disc burner.
4. Click Burn.

USB

1. Open Rufus.
2. Ensure your device is correct by checking the contents of the Device dropdown.
3. Click the CD icon found in the image below, and select the ISO.
4. Untick all options **except** "Create a bootable disk using" and use the dropdown to select "DD Image".
5. Click Start.



Boot the Image

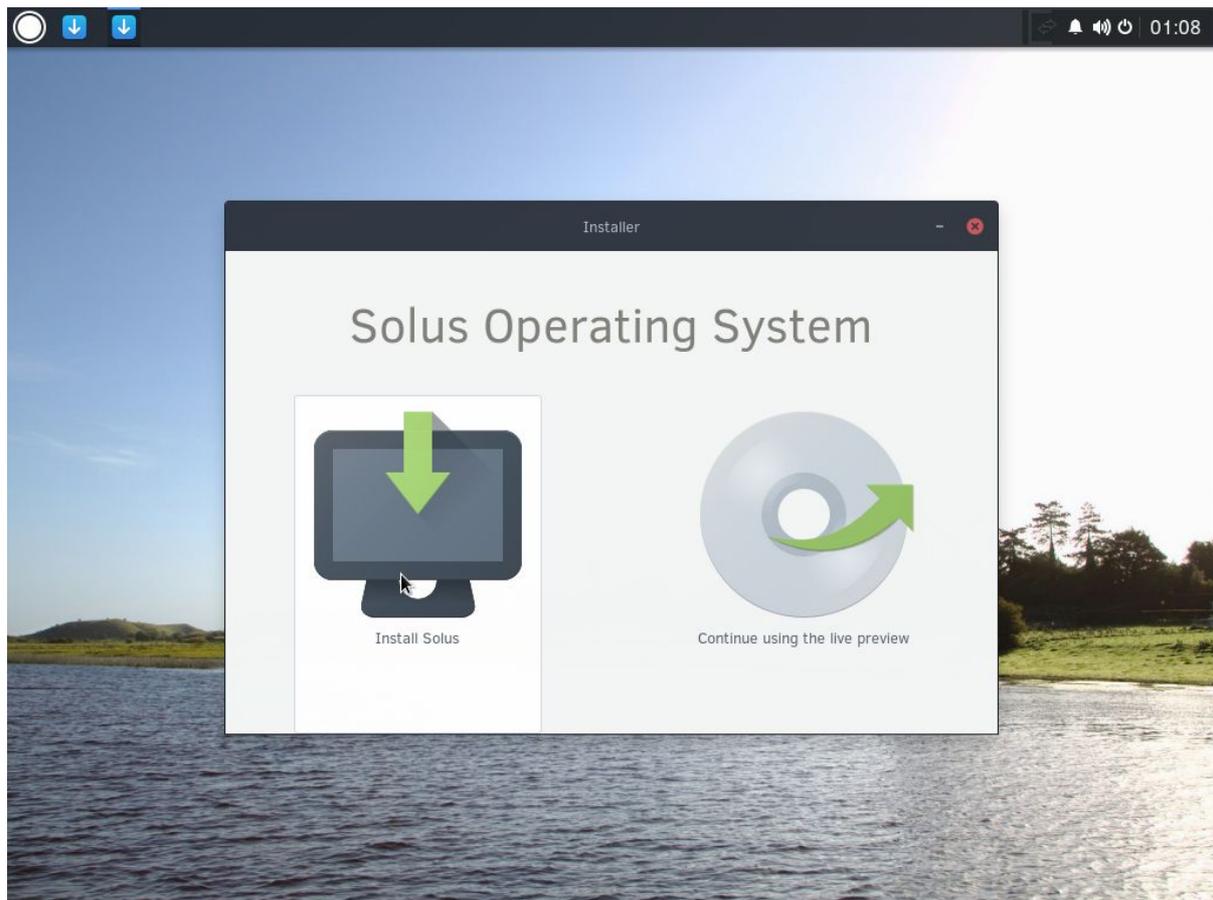
Now it is time to restart your computer to boot the DVD or ISO. Most computers will automatically boot from DVDs and USB, however if you experience issues booting the media, you may need to select to boot from DVD or ISO.

This is usually accessible by pressing `F9` or `F12` while your computer is booting.

Installing

This section will walk you through the installation of the Solus operating system.

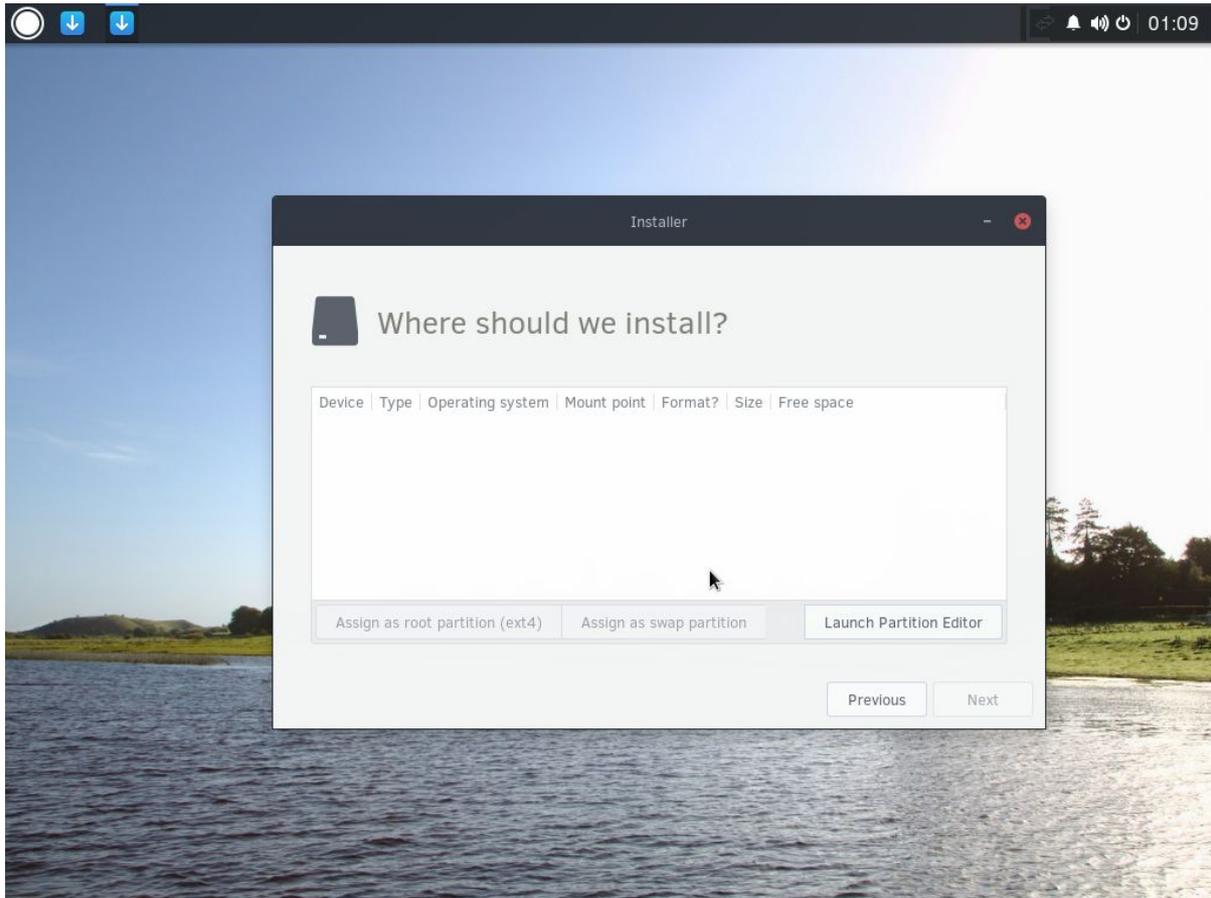
Starting Installer



The first step to installing Solus is, naturally, starting the Installer. Click the down-arrow icon in the upper left corner of the screen, then proceed to click Install Solus.

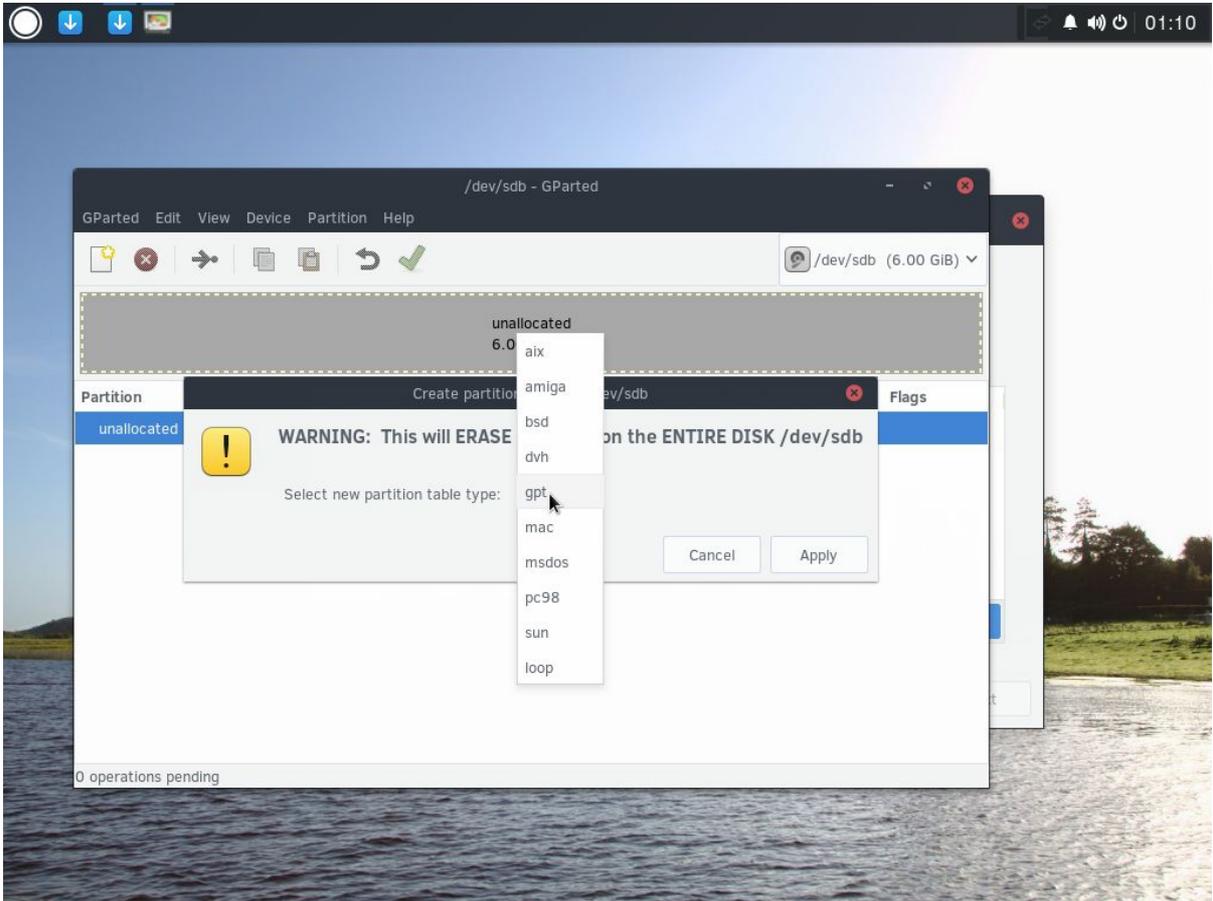
Partitioning your system

In this section, you will proceed to partition your system. This may mean the erasing of personal information on this system. If you are using a UEFI / EFI system, please follow the partitioning notes stated [here](#).

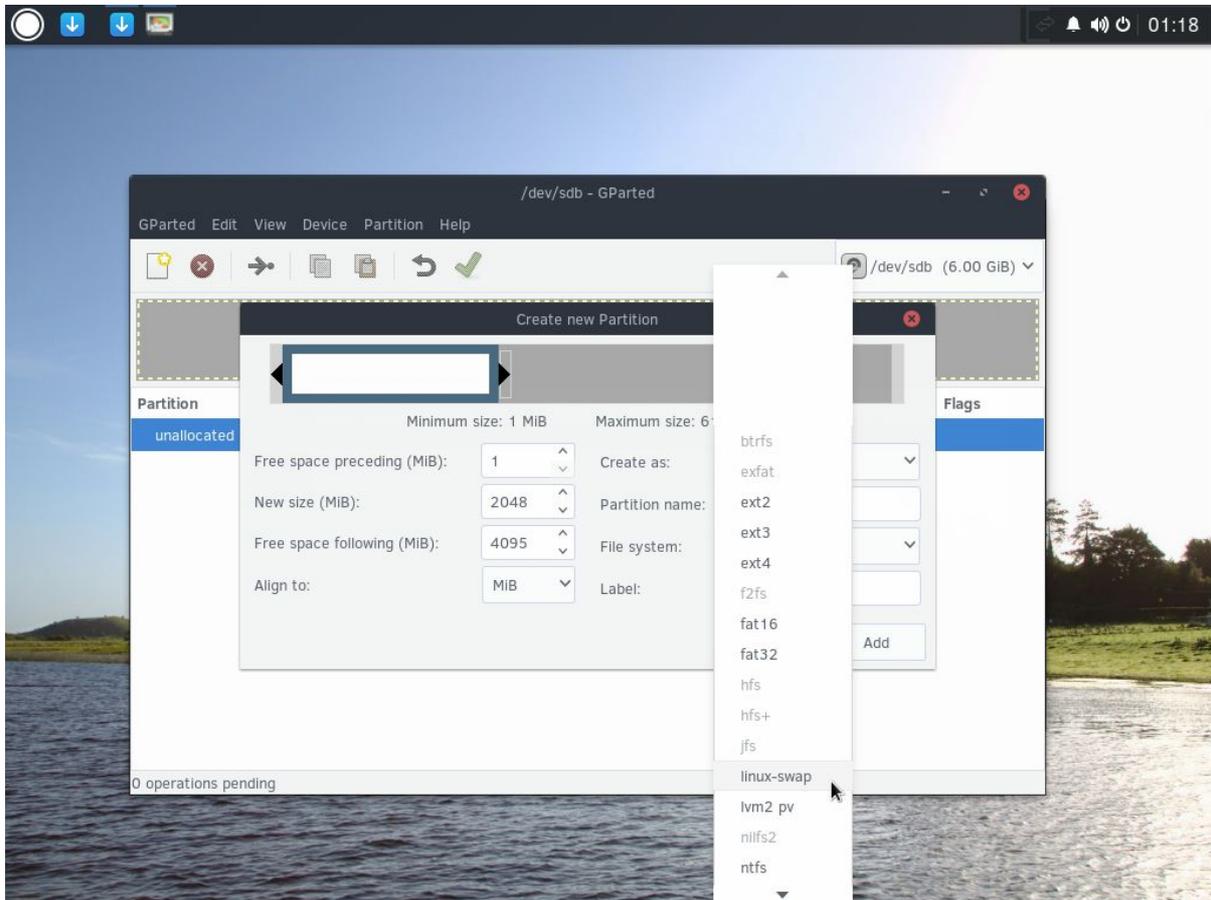


The next step will be to select the drive you wish to install Solus to. After clicking the appropriate drive, you will come across our partition manager system. Now click Launch Partition Manager.

Note: The above screenshot reflects an empty drive. Your drive may appear differently.



If your drive contains no data, click on Device menu, then Create Partition Table. Click the dropdown next to Select new partition table type and click **gpt**. Now click Apply.



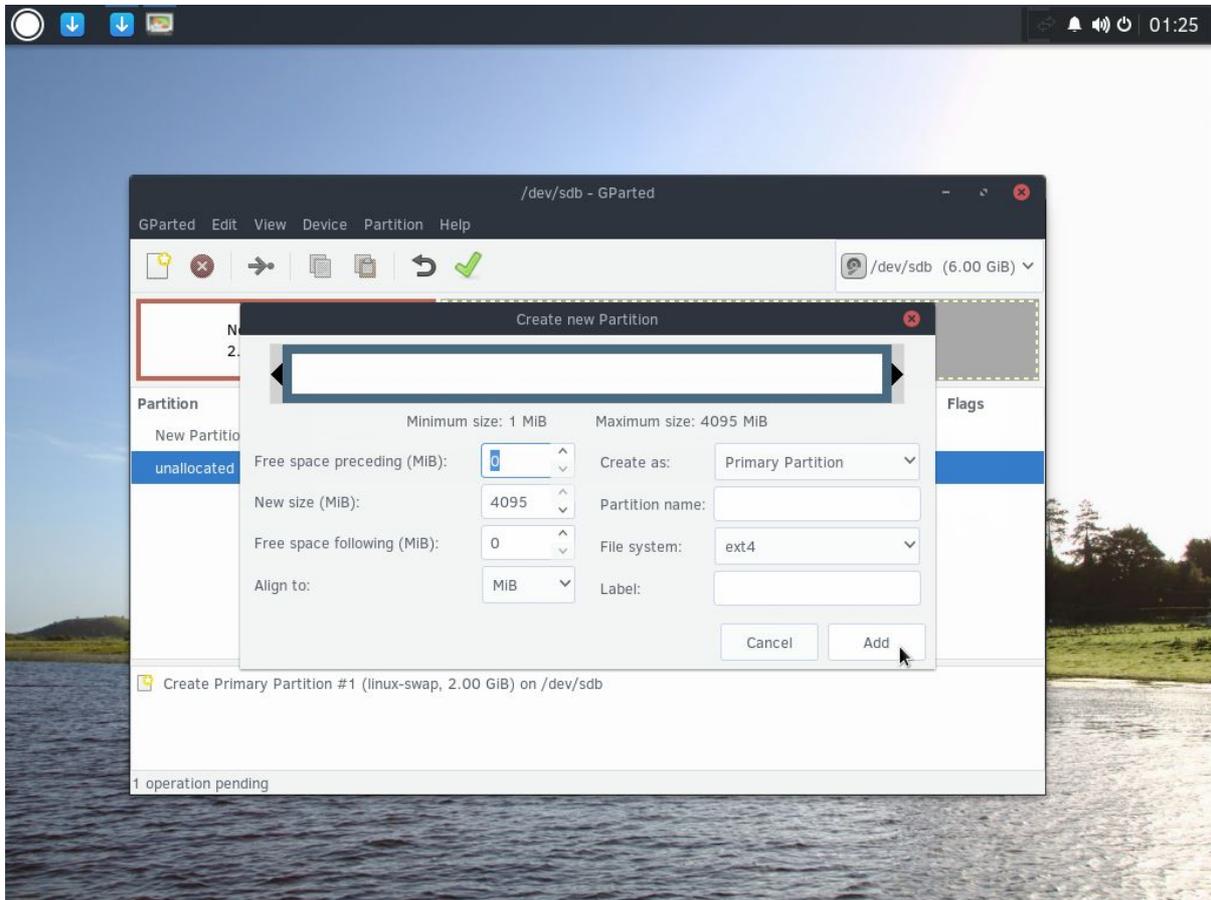
Next, right click on the “unallocated” row in the partition table (below the graph) and click New.

This will bring you to the Create new Partition window, where we will first create Swap.

What is Swap?

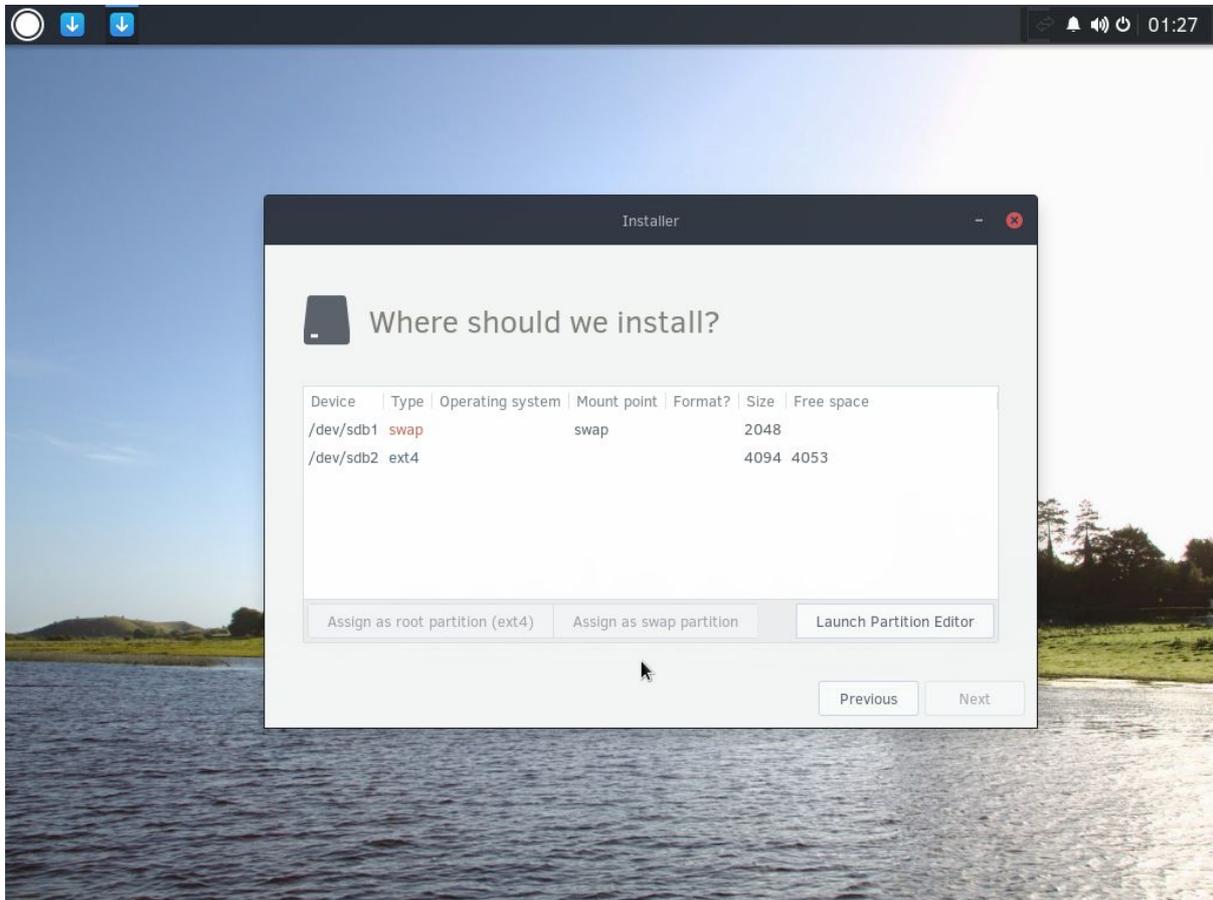
Swap is disk space that is used to contain application’s resources in the event your system’s memory (RAM) is full.

We recommend a default of 2GB (2048 MiB) for swap. Type “2048” into the “New size (MiB)” section. Now click the “File system” dropdown and press “linux-swap”. Proceed by pressing Add.



Right click the unallocated row again and proceed to click Add (you will not need to change anything).

Now click the big green check box to format the drive to the way you partitioned it. After it is done, it will say "All operations successfully completed". Click close. Then close the GParted window.

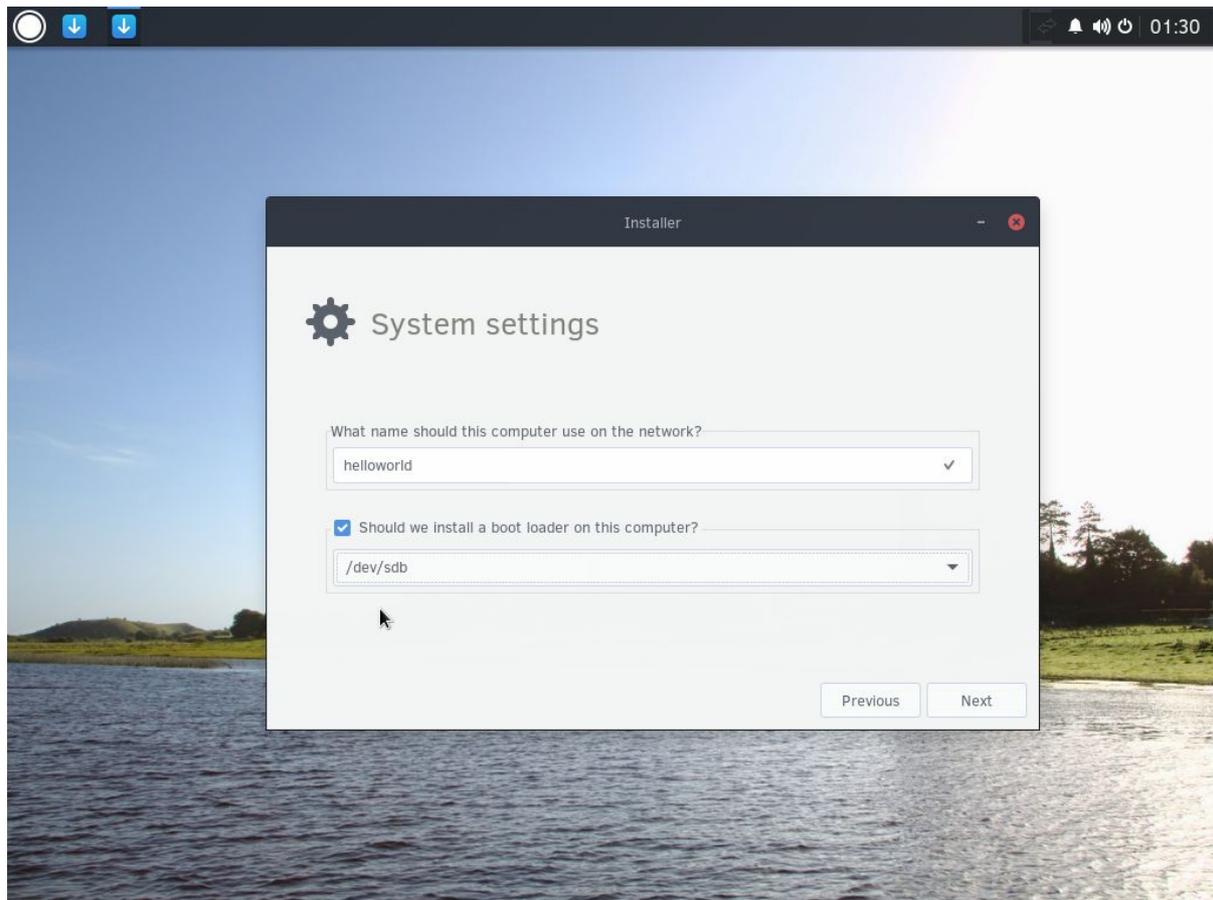


You should now see a screen such as this, showing the new partitions.

First, click the swap device and click “Assign as swap partition”.

After doing so, click the second device (ext4) and click “Assign as root partition”. Remember the device prefix (in the image above, it is `/dev/sdb`) and click Next.

System settings and boot loader

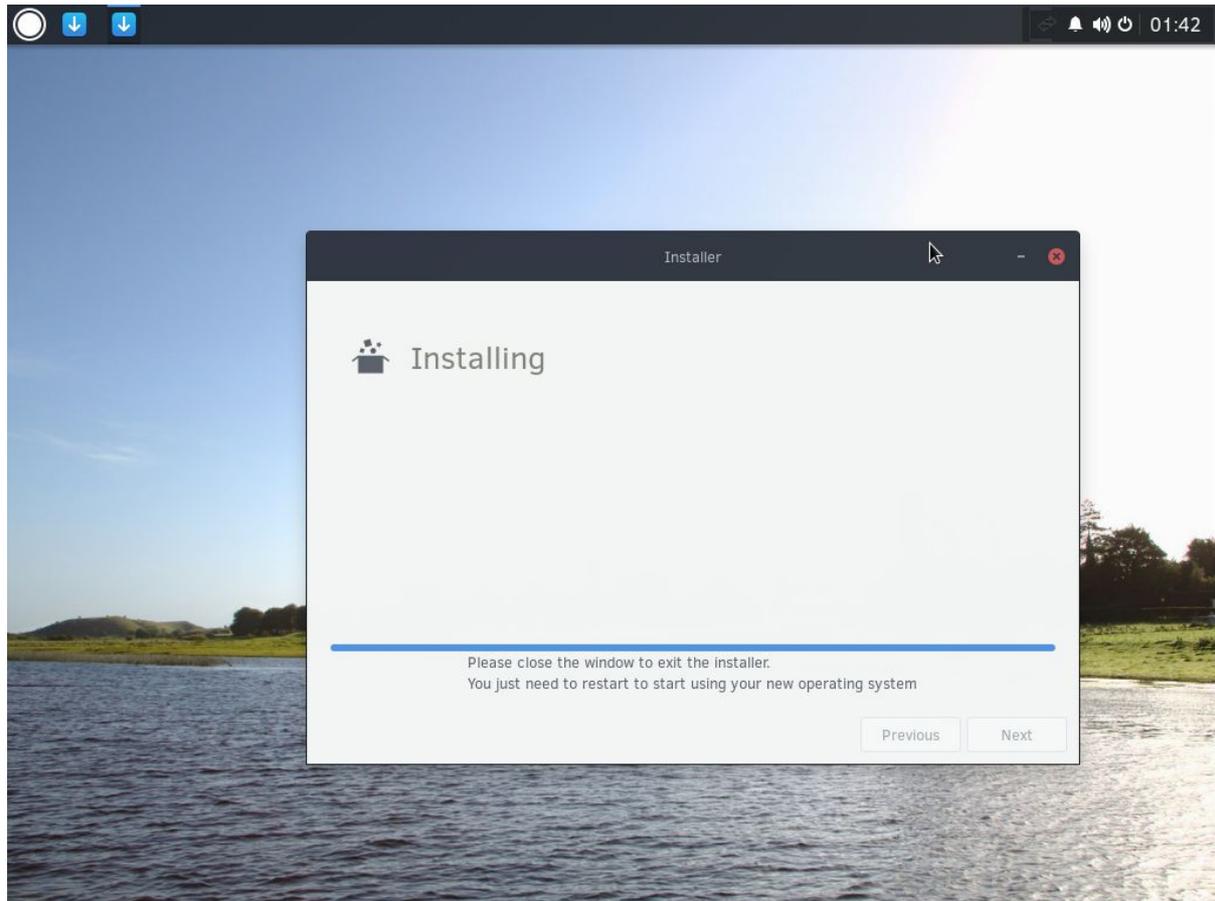


You will now come across a System settings section. This is where you type the name you wish to call your computer. Using the device from the preview screen (partitioning), click “Should we install a bootloader on this computer?” and then select that device.

Click next, review the Summary, then click Next if everything looks good!

It will now begin installation of Solus on your system! This may take some time.

Installing



Upon getting to this screen, exit the Installer.

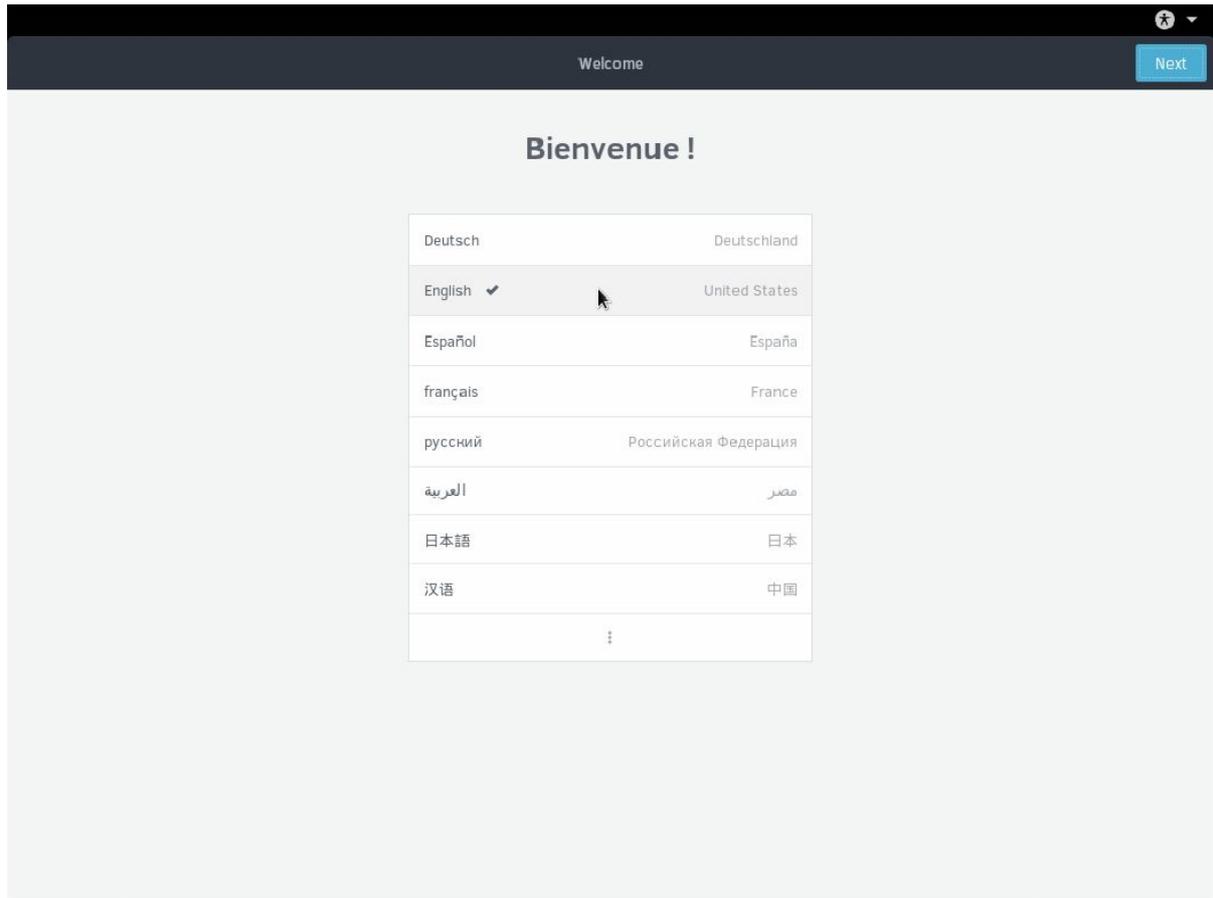
If you are using a DVD, proceed to eject the DVD and turn off your system.

If you are using a USB, proceed to turn off your system and remove the USB.

Now turn on your system!

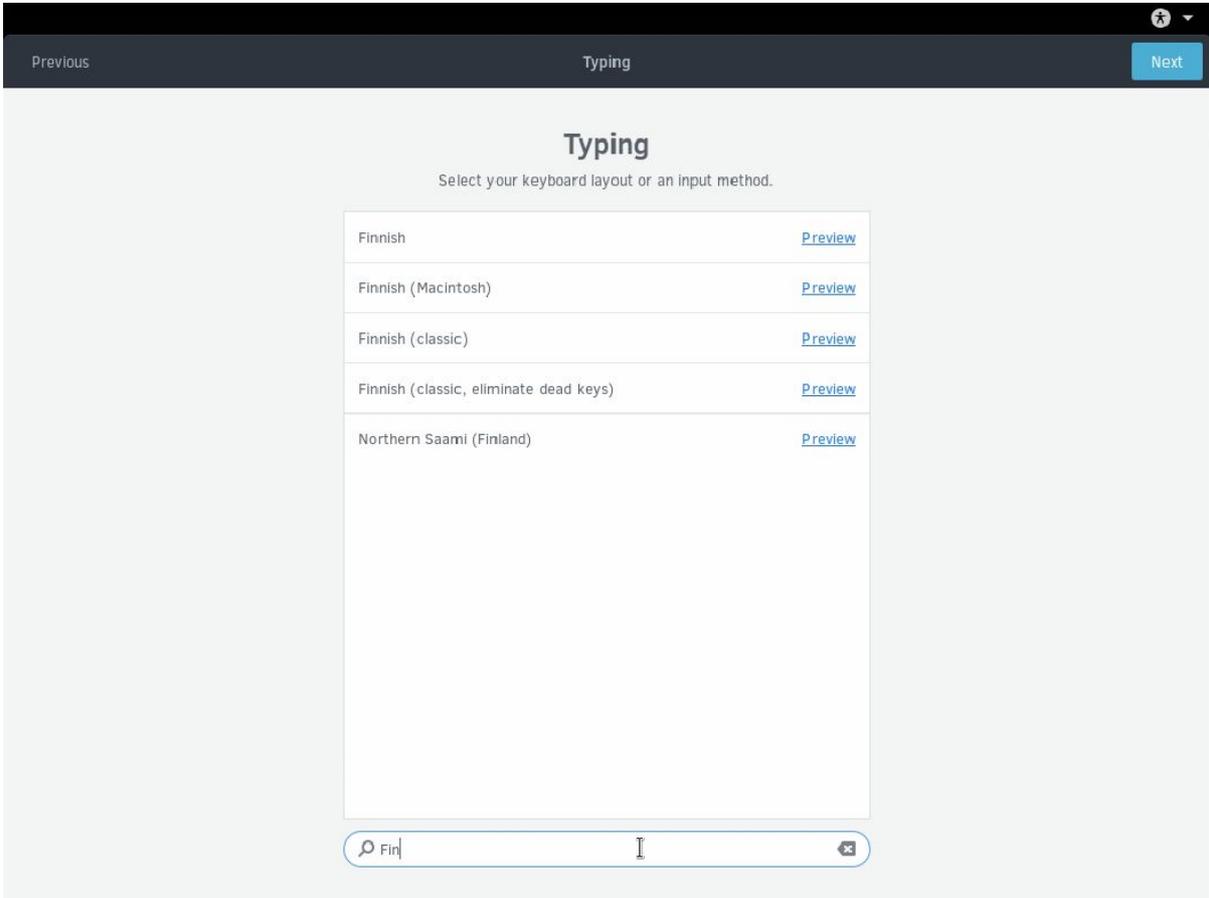
First boot

When you first boot up your new Solus system, you will be setting up your language and keyboard settings, your user account, and network settings.



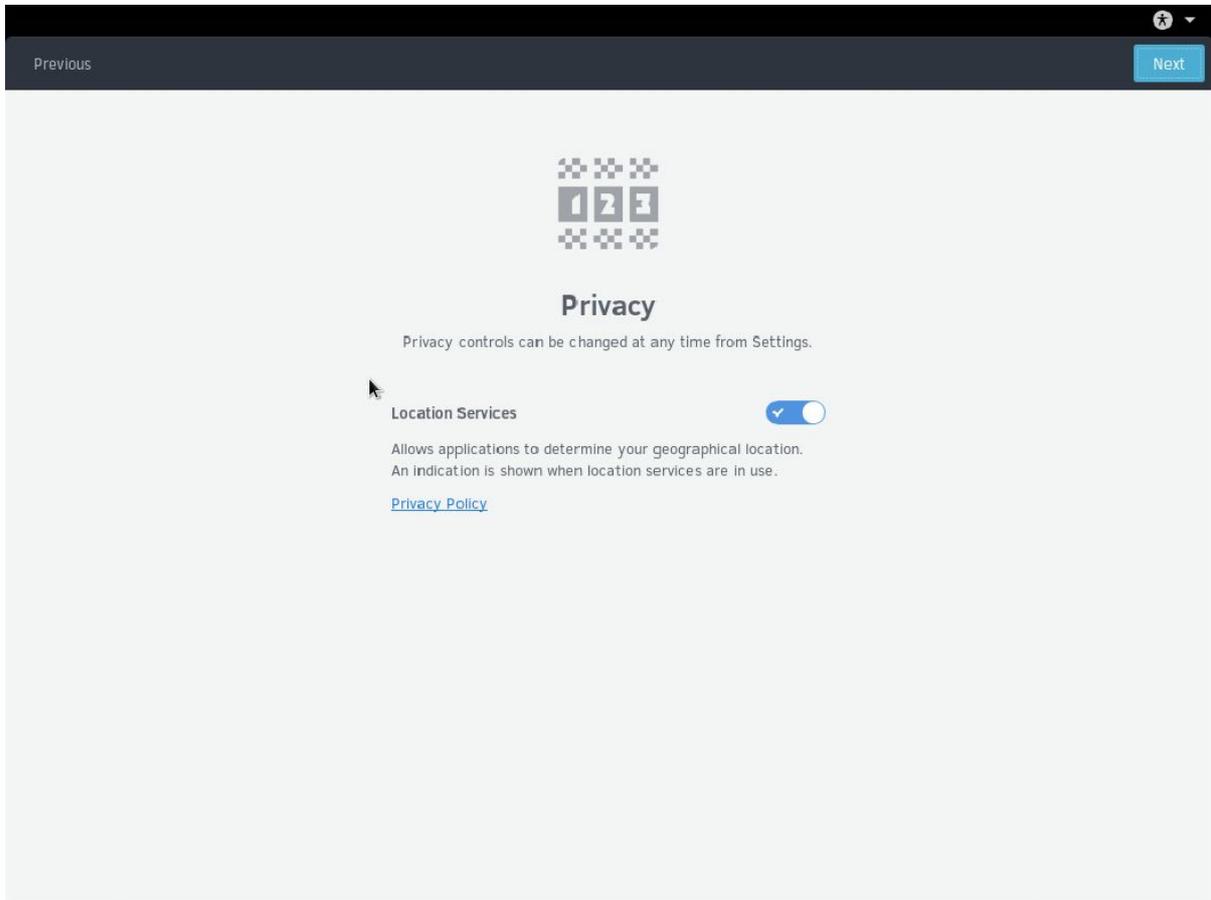
Click the appropriate language or ⋮ button for more options.

Then proceed to click the Next button in the top right corner.



Here you will specify the language of your keyboard. If you do not find the correct keyboard layout, you may click the  button and type your keyboard layout, like in the above picture.

Upon finding and selecting the correct keyboard, click Next.



Next we arrive at the Privacy section. In this section, you have the option to disable Location Services. Location Services are used to determine your geographical location and are only used for specific applications.

The Solus Project does not store any location information.

After keeping it the same or disabling Location Services, click Next.

Previous Time Zone Next

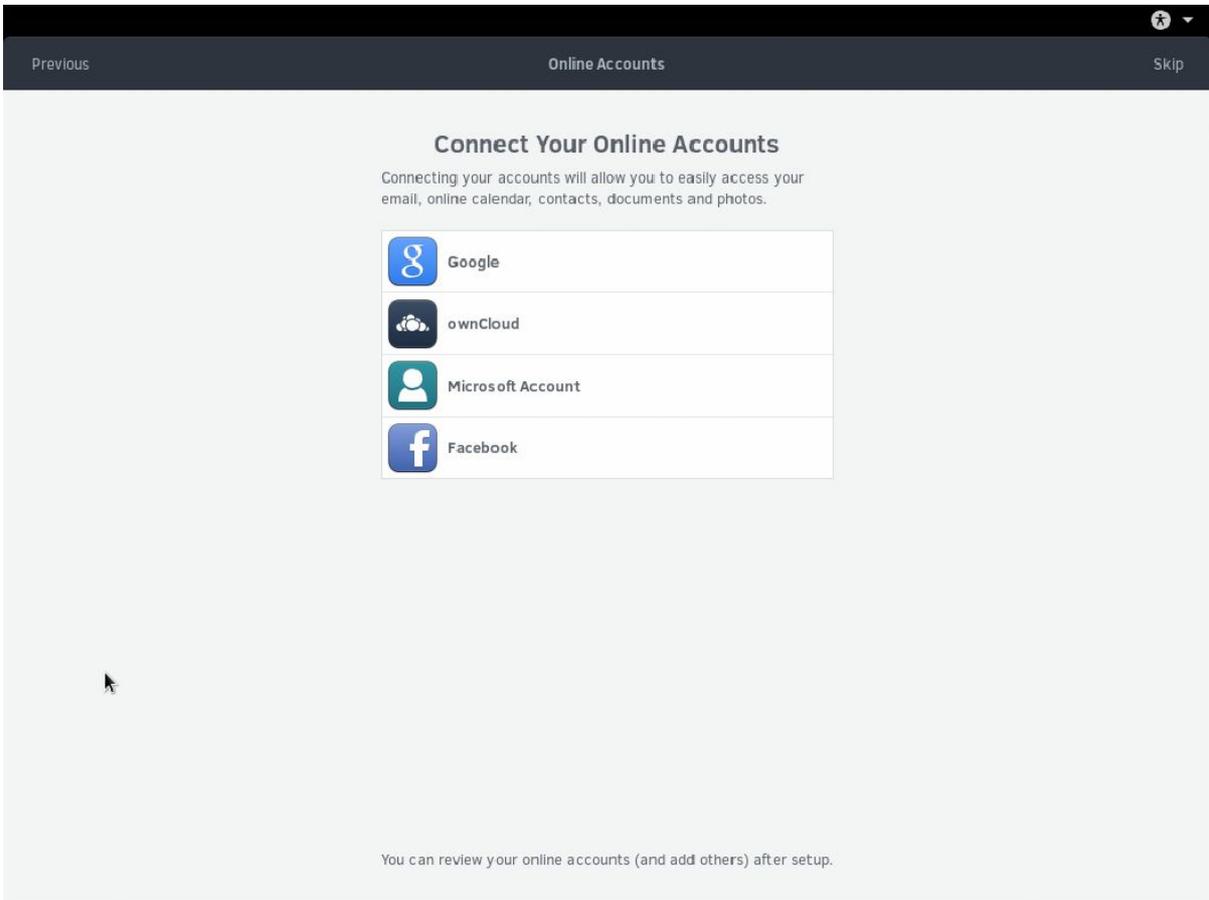
Time Zone

We think that your time zone is **EET (Tampere, Finland)**. Press Next to continue or search for a city to manually set the time zone.



The image shows a world map with vertical lines representing time zones. A red pin is located in Finland, and a green shaded region covers parts of Europe, Africa, and Asia, indicating the current time zone selection.

Next we will be choosing our time zone. We attempt to correctly determine your current time zone, however in the event it is incorrect, you may select individual regions or type (click the Search button) your location to find the most relevant result. After setting your time zone, click Next.



Next you have the option to connect your online accounts to easily access calendar, contacts, documents, and more. This is an optional step and can always be done later via the Settings application.

Previous About You Next



About You

We need a few details to complete setup.

Full Name ✓

Username ✓ ▼

This will be used to name your home folder and can't be changed.

In this step, you type what your name should be on the system (shows on login screen), your user name, and you can select an avatar if you wish.

After filling in this information, proceed to click Next.

Previous Password Next

Set a Password

Be careful not to lose your password.

Password ✓

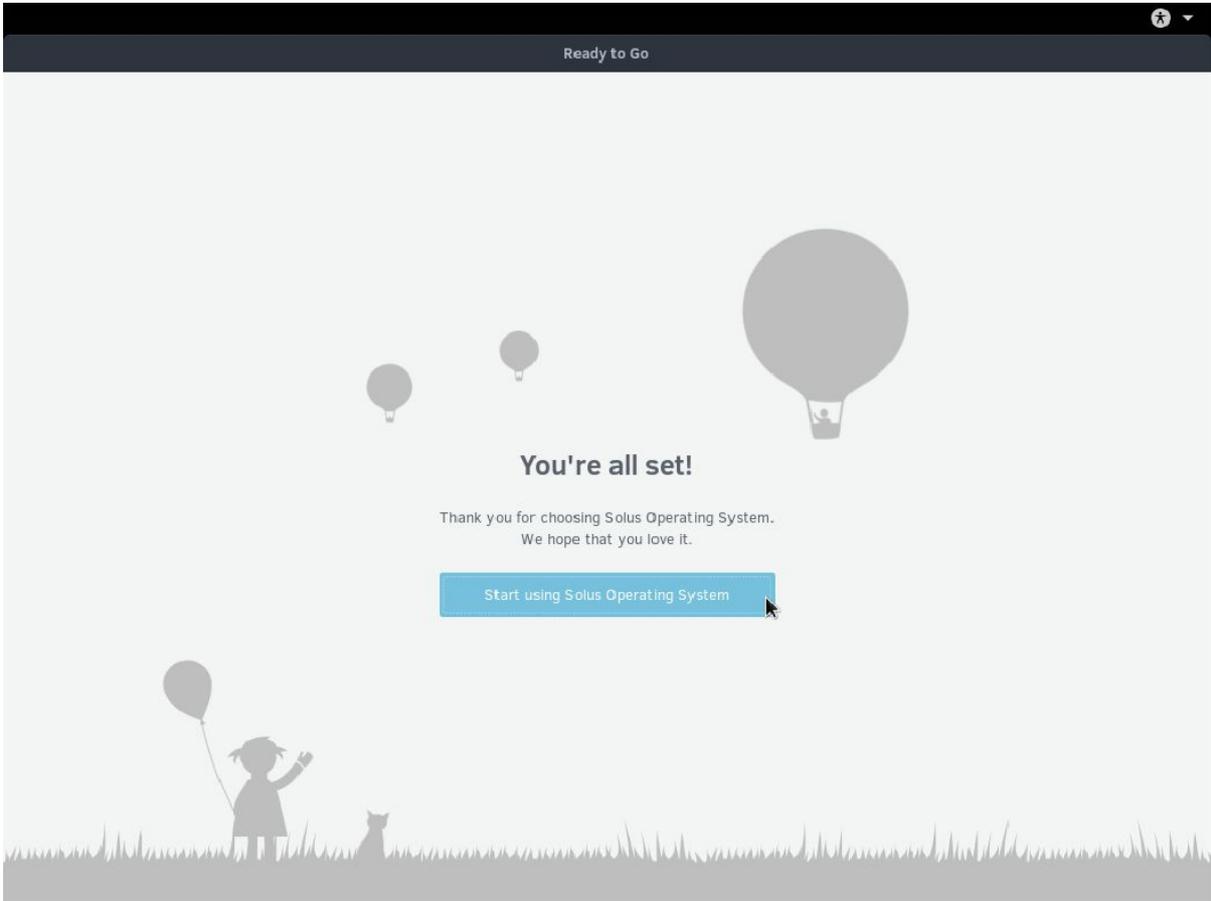
Good password! Adding more letters, numbers and punctuation will make it stronger.

Verify ✓

Next we will type in the password used to access this system. We recommend using a strong password that is:

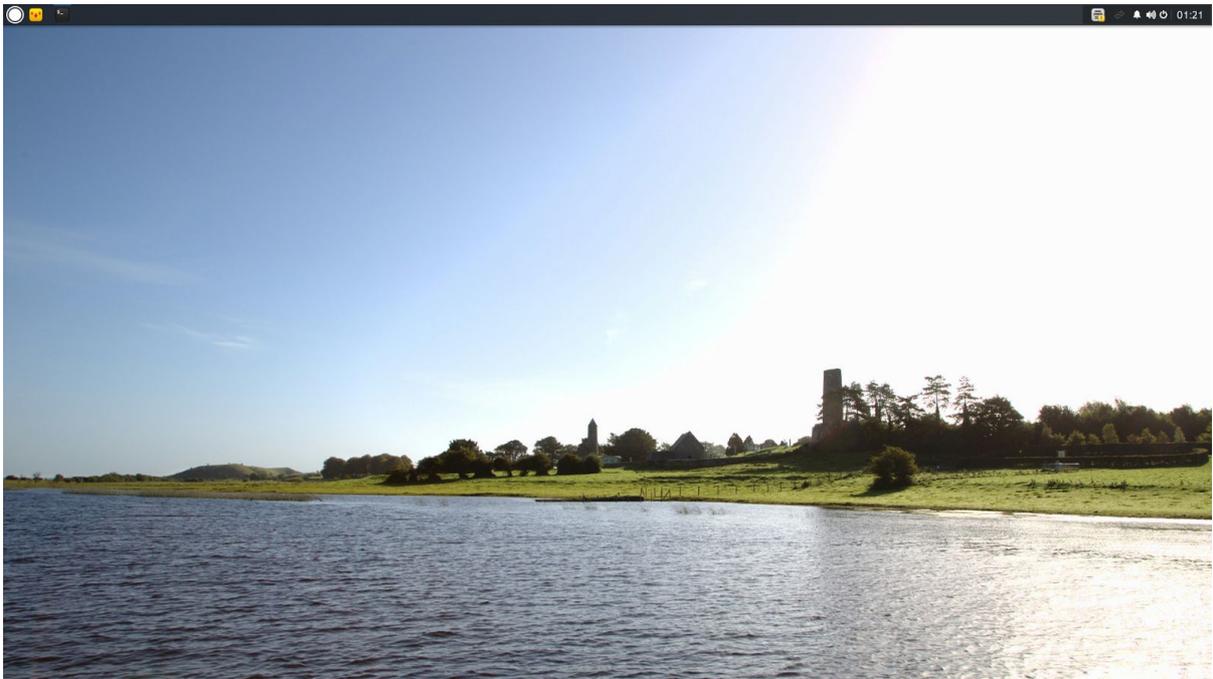
1. 8 characters or more.
2. A mix of lowercase, uppercase, and numbers.
3. Optionally punctuation.

As your password gets strong, the green progress bar fills up. So long as one green section is filled and your passwords match, you can click Next. But you should have it be as strong as possible!



You are now ready to use your Solus system. Click the “Start using Solus Operating System” button and you will be moved to the login screen to log in to your fresh system!

Using The Desktop



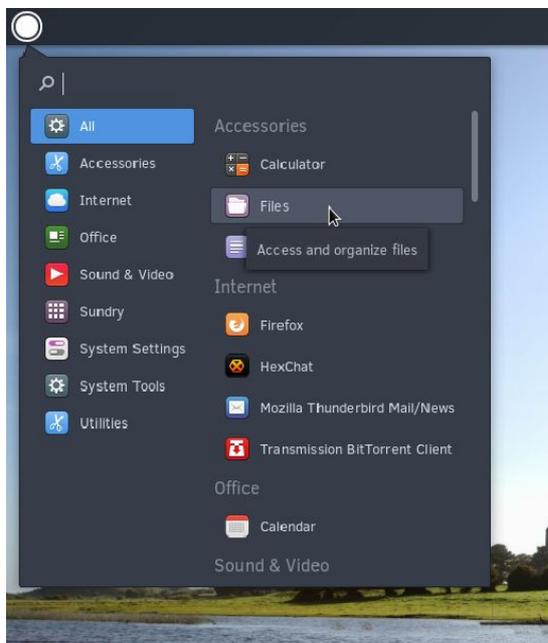
Designed with the modern user in mind, it focuses on simplicity and elegance.

About Budgie

Budgie is the flagship desktop environment of the Solus Operating System. It is designed with the modern user in mind, it focuses on simplicity and elegance, while being powerful and customizable enough to make it your own.

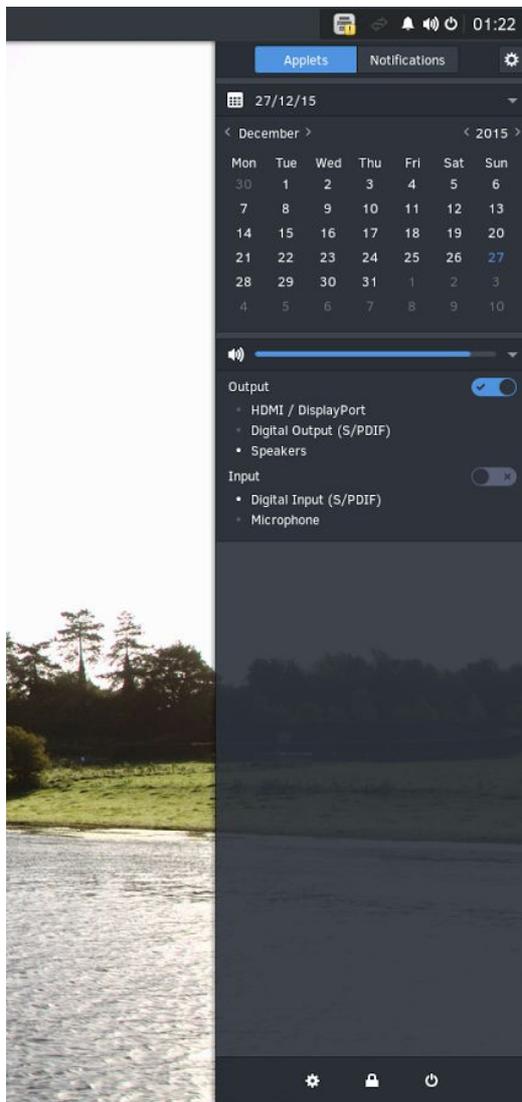
Accessibility

Budgie has been tested and refined to ensure High Contrast theming works out-of-the-box and enabling usage by individuals with visual impairments.



Budgie Menu

This menu enables quick access to your installed programs and offers category and compact views.



Raven

Budgie ships with an applet, notification and customization center referred to as Raven.

Raven enables you to:

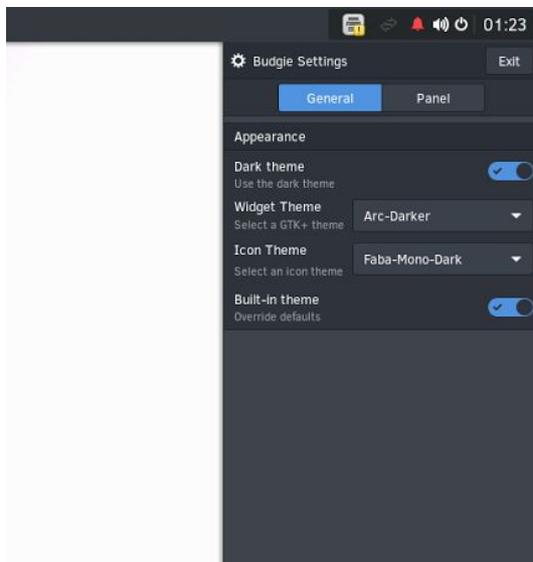
1. Easily access calendar information, sound volume, media player controls, and more via Applets view.
2. Manage incoming application and system notifications via Notifications view
3. Customize your Budgie and system experience by enabling you to:
 1. Toggle system-wide Dark theme.
 2. Change GTK and icon theming
 3. Add, remove, and modify Budgie panels, their properties as well as their displayed applets.
4. Obtain quick access to system settings and power options such as restart, suspend, and shutdown.

You can access Raven by clicking the status icons (such as notification bell) in the top right corner of the screen or via the Keyboard Shortcut stated below.

Keyboard Shortcuts

We provide numerous keyboard shortcuts to enable quick access to areas of the Budgie desktop.

Keyboard Shortcut	Action
Windows key (also Windows key + S)	Open Budgie Menu
Windows key + N	Open Raven



Budgie Settings

You can customize your Budgie desktop experience via Raven. Click the cog wheel icon when you have Raven open.

In the Budgie Settings “General” section, you can choose to use a global Dark theme, “widget” theme, and icon theming

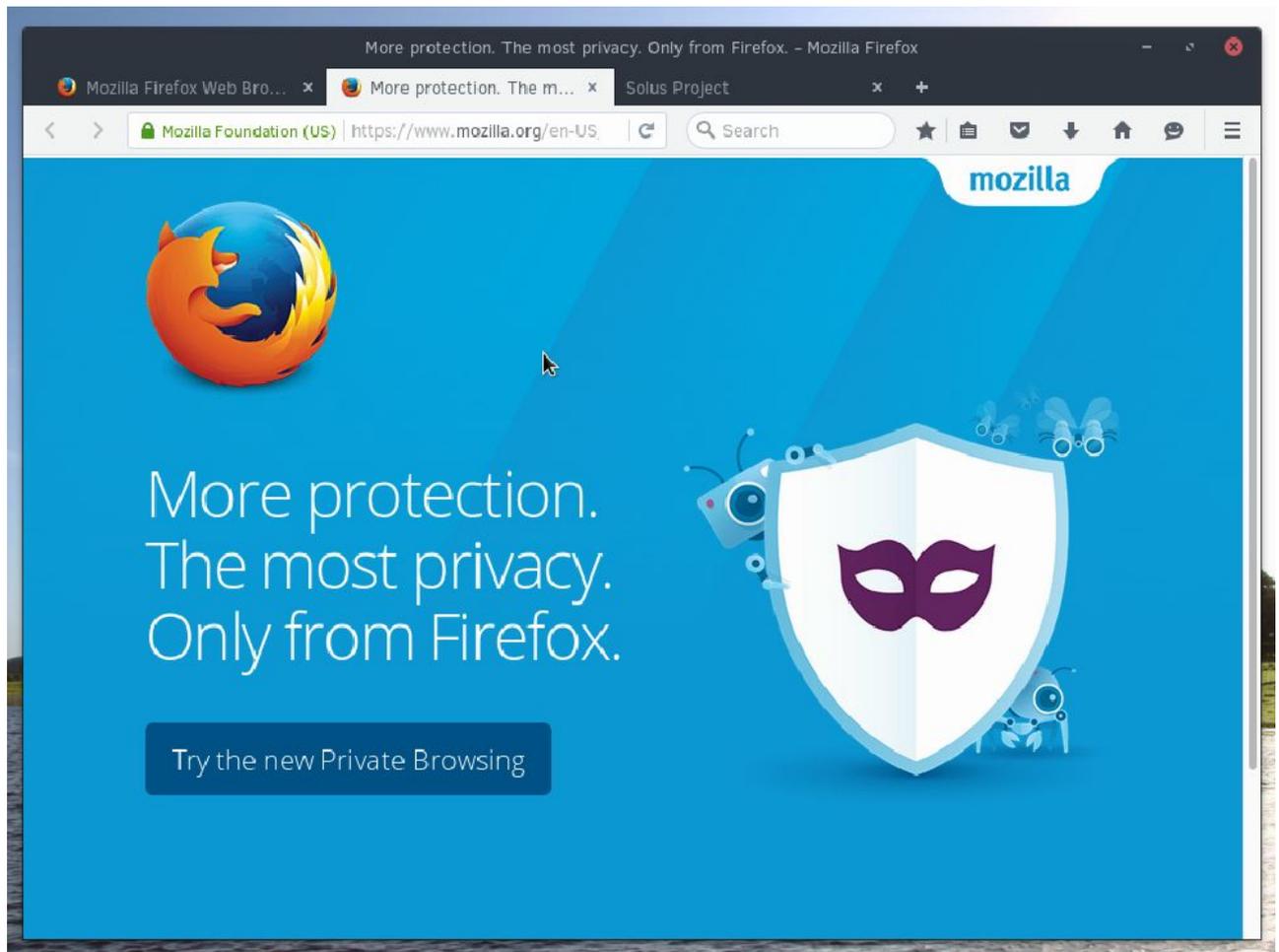
In the Budgie Settings “Panel” section, you can choose:

- If you wish for the panel (where running applications, clock, etc. are shown) to be on the top or bottom of the screen
- How tall the panel is and whether it has a shadow.
- The positioning of individual “applets” (like the clock).
- Individual sections for applets (click on the Icon Task List applet as an example and see the cog wheel light up.)
 - Sometimes individual applets have further customization options! The Icon Task List enables you to enlarge the icons, for example.

Common Tasks

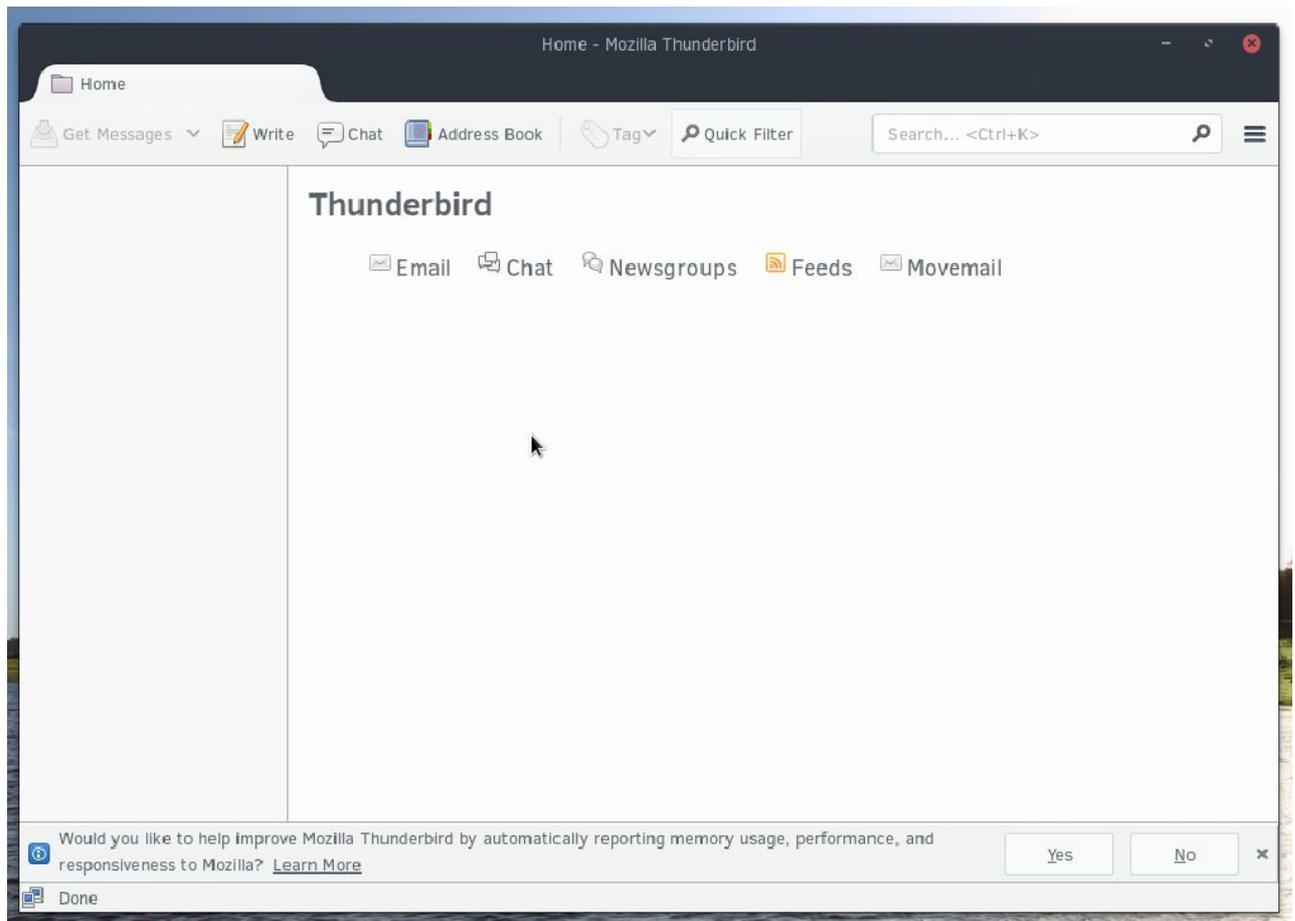
*Solus aims to make the everyday experience of computing easier.
We provide numerous applications out of the box to make your experience
seamless.*

Browsing the web



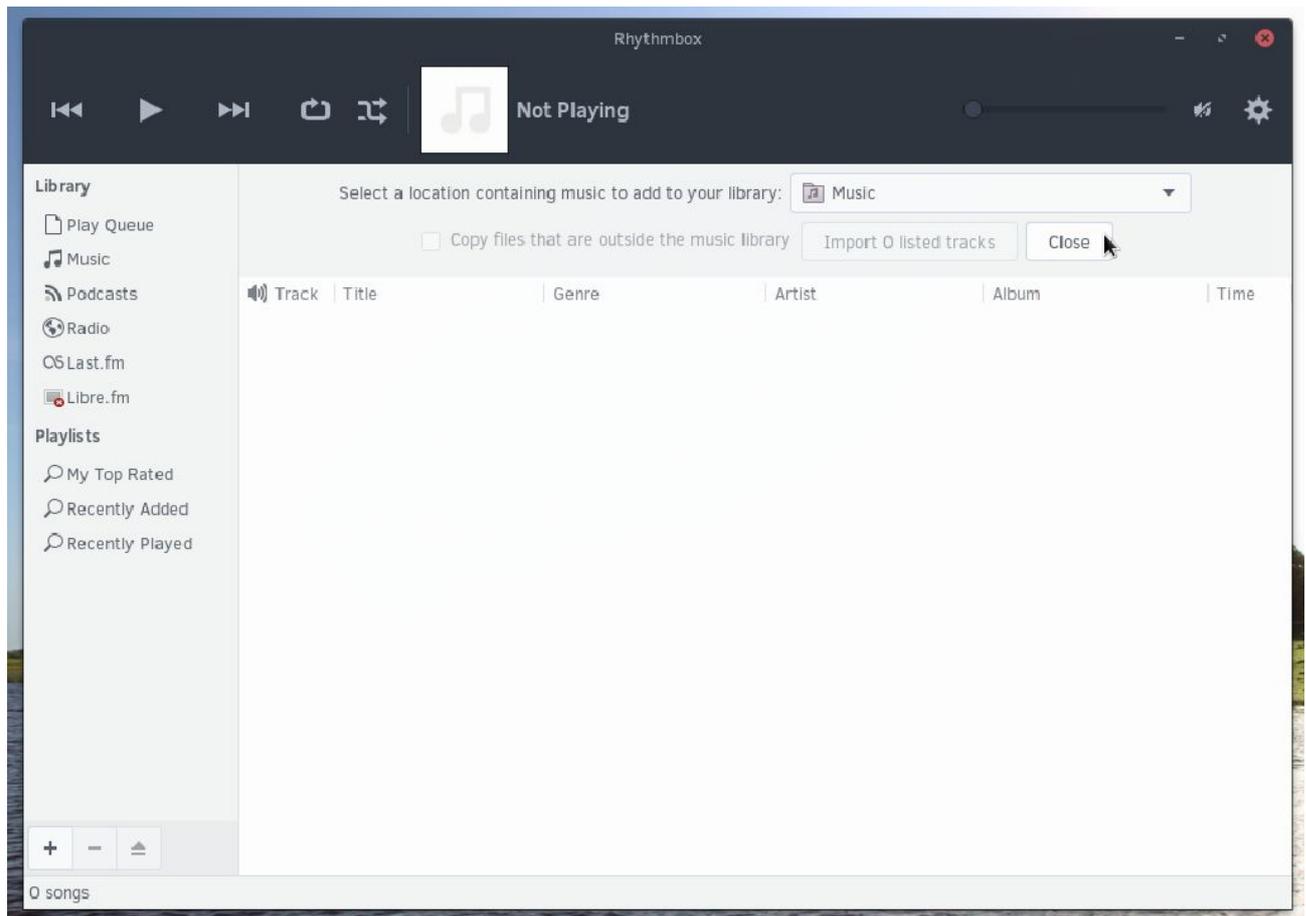
Solus comes pre-installed with Firefox, a secure and trustworthy web browser provided by the non-profit organization [Mozilla](https://www.mozilla.org/).

Checking email



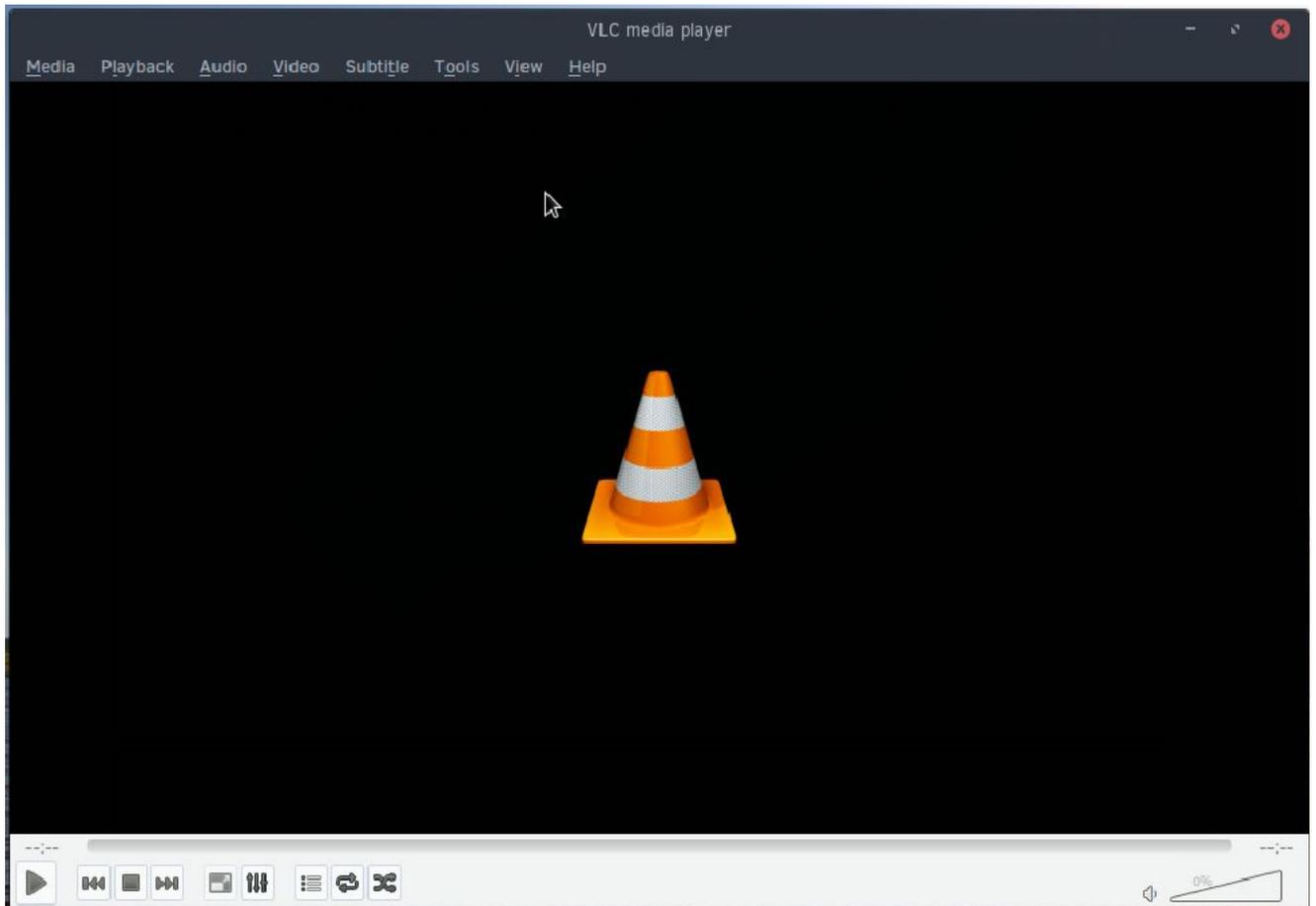
Solus comes pre-installed with the powerful [Thunderbird](#) email, newsgroup, and feeds client.

Listening to music



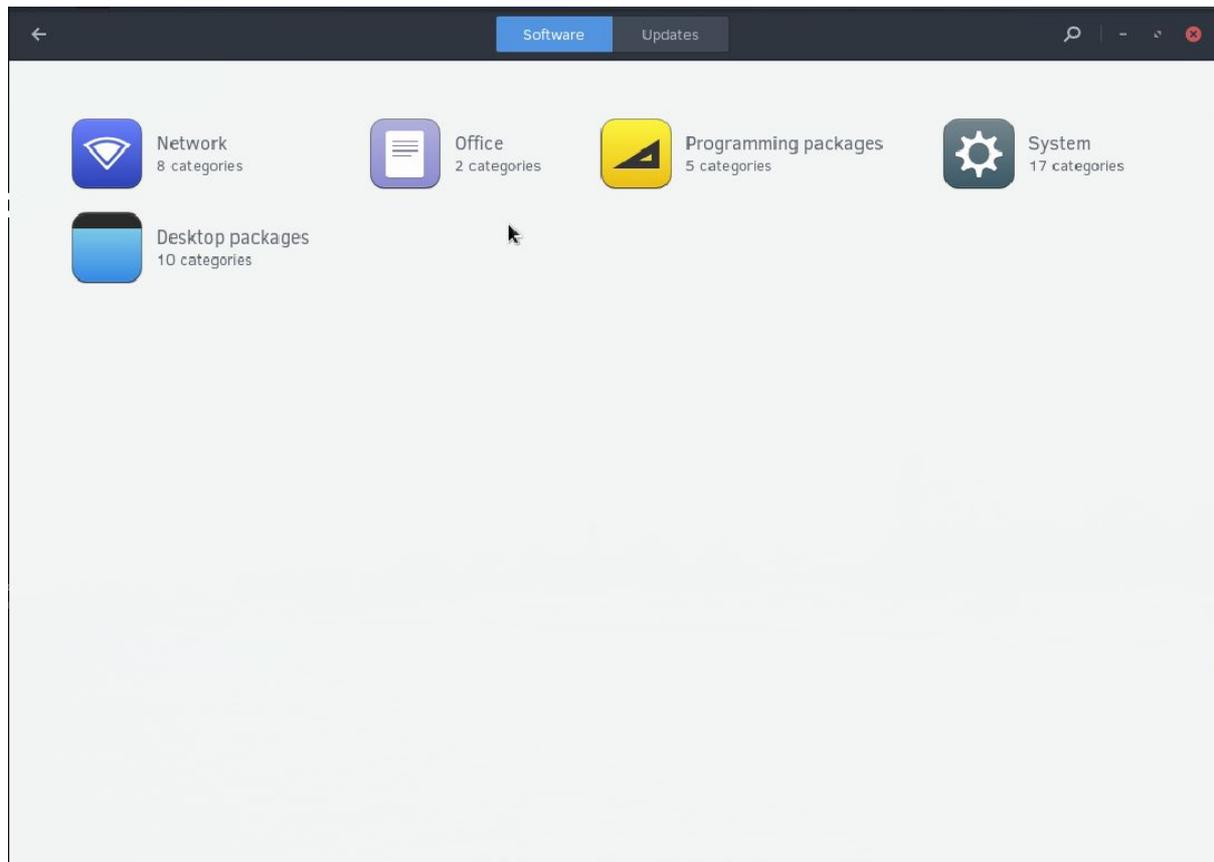
Solus comes pre-installed with the rockin' music player Rhythmbox as well as the necessary codecs to play all your favorite music!

Watching videos



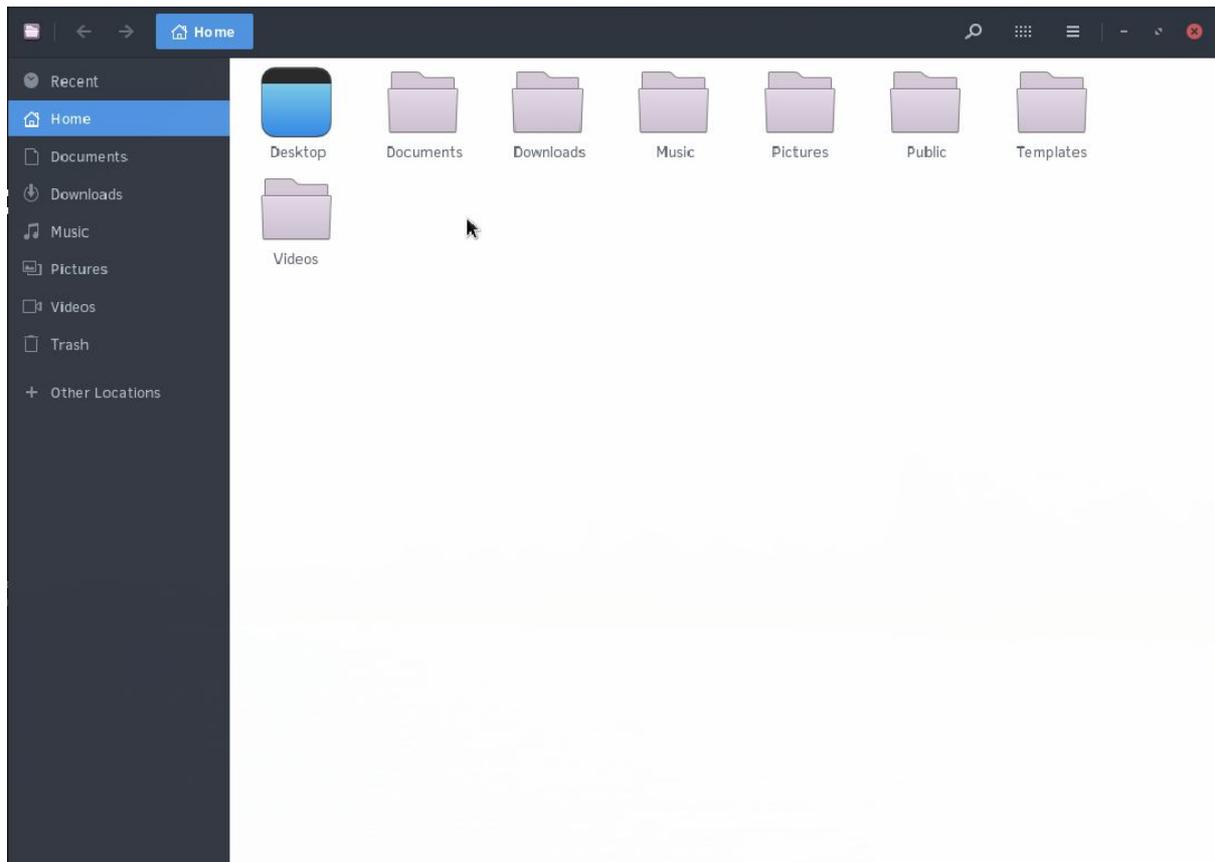
Solus comes pre-installed with the VLC Media Player, enabling you to watch your favorite movies, t.v. shows, DVDs, and Blurays.

Installing and updating software



You can install software (such as the free office suite LibreOffice) as well as updating software via our Software Center.

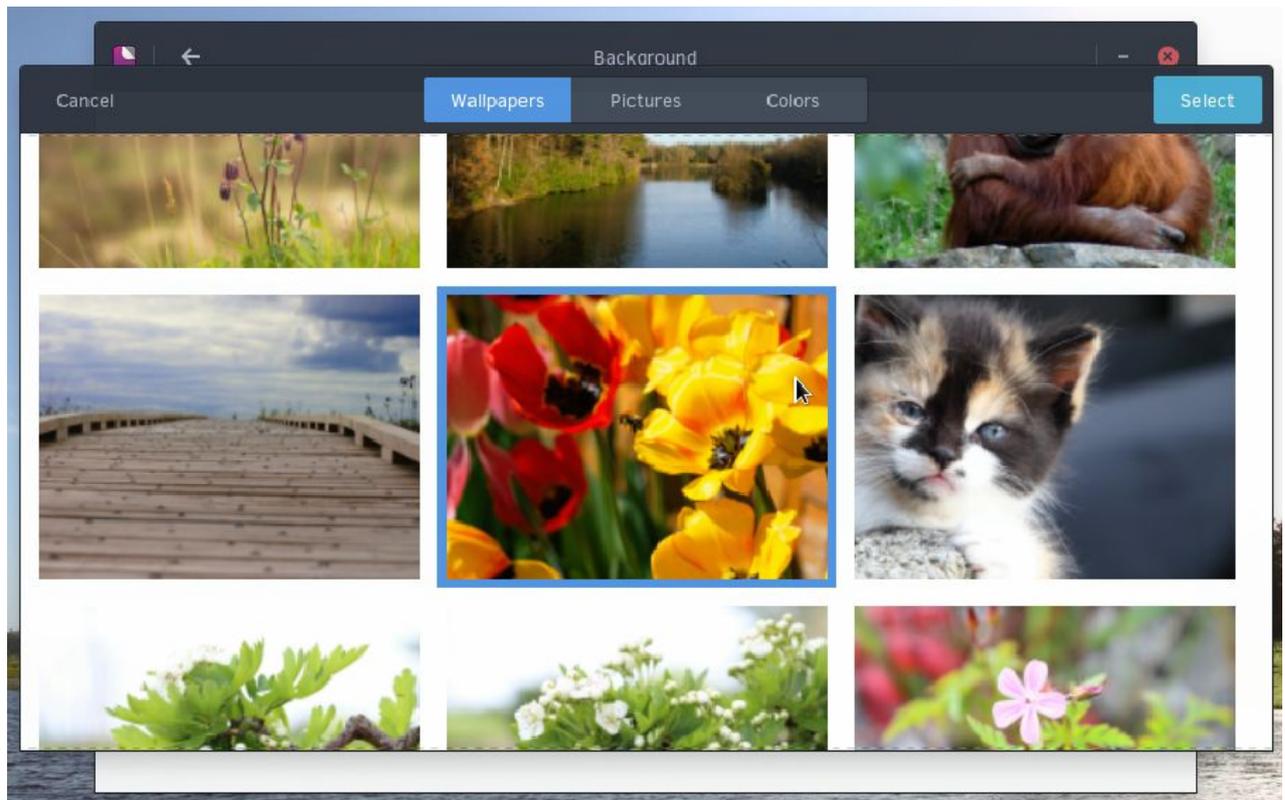
Managing your files



Solus provides software that enables you to store, organize, and view your files (such as documents, music, pictures, and videos).

Managing your system

Changing Background



You can change your background by going to the Budgie Menu, opening Settings, then clicking Background.

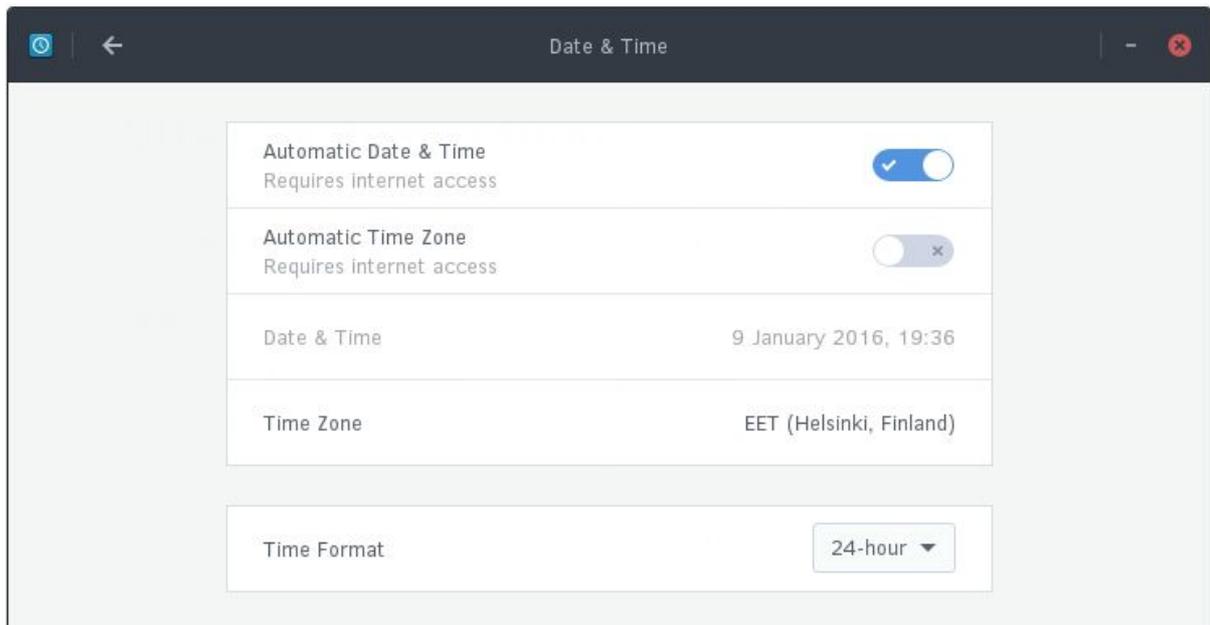
You will have two options, Background and Lock Screen. Select Background.

In this section, you can choose between predefined wallpapers, pictures in your Pictures folder, or solid colors. After choosing, click Select.

Configuring Date and Time

You can configure the date and time of your system by going to the Budgie Menu, opening the Settings app then going to the Date & Time section.

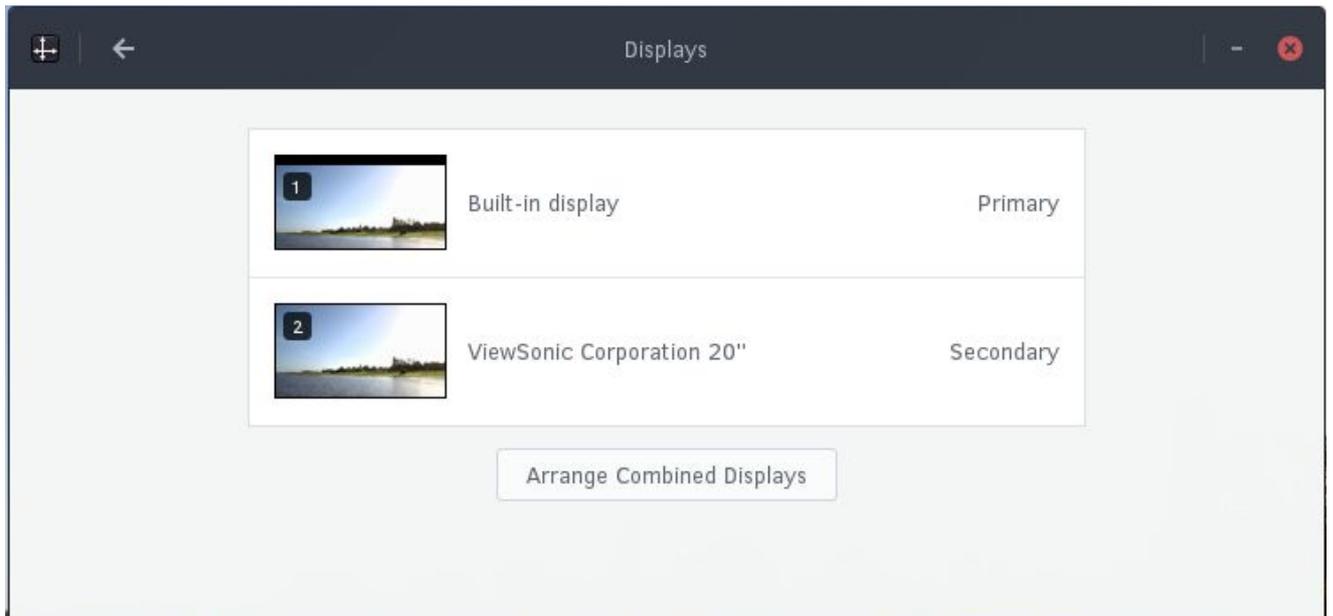
You will be presented with the following window. This window provides you the ability to enable / disable automatic date & time, automatic time zone changing, and the time format.



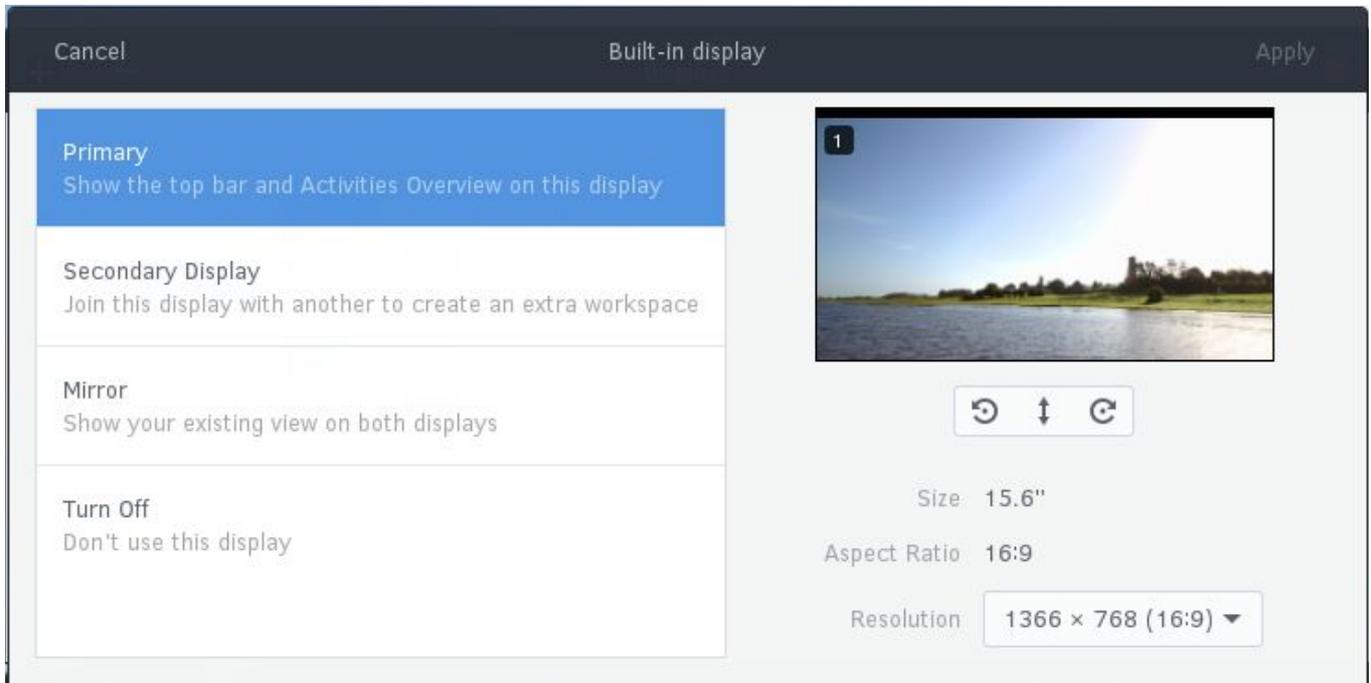
Configuring Displays

You can configure your display(s) by going to the Budgie Menu, opening the Settings app, and clicking the Displays section.

You will then be shown the following window.



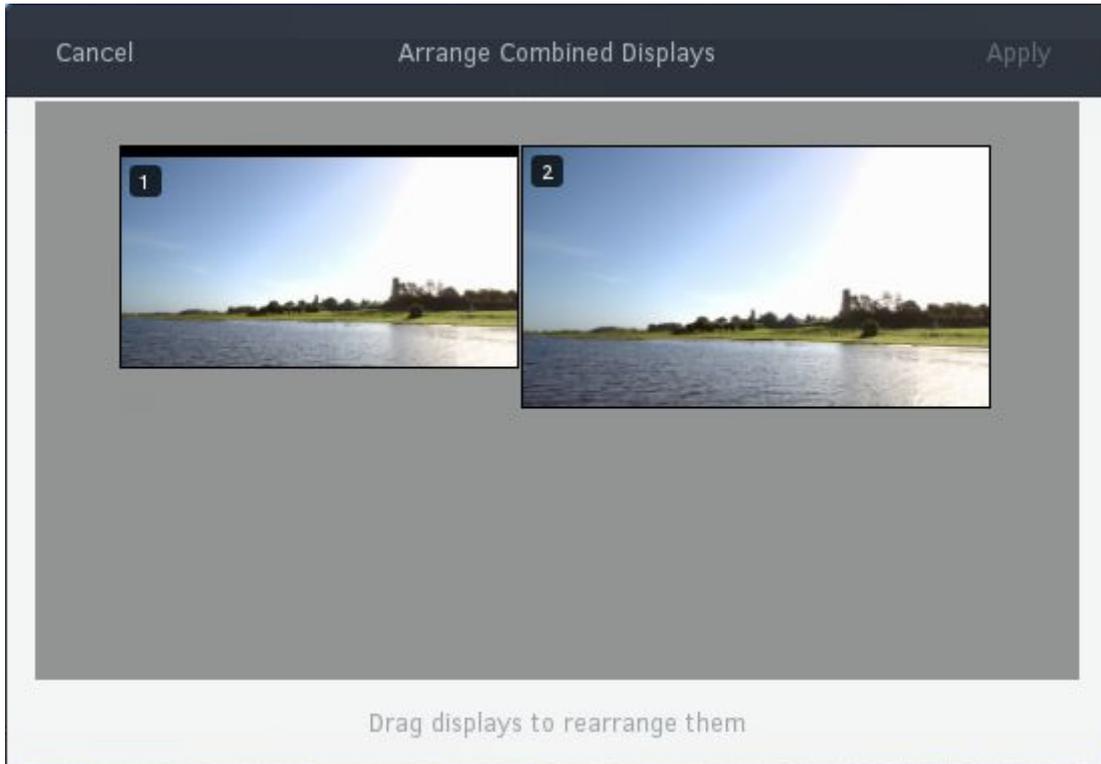
In this window, you can select individual displays to configure. Clicking on an item will show the following dialog.



This window will enable you to select if you wish to use this monitor as the primary or secondary display, mirror it with another display, or turn it off.

It also gives you size and aspect ratio, ability to rotate the display, and ability to change the resolution.

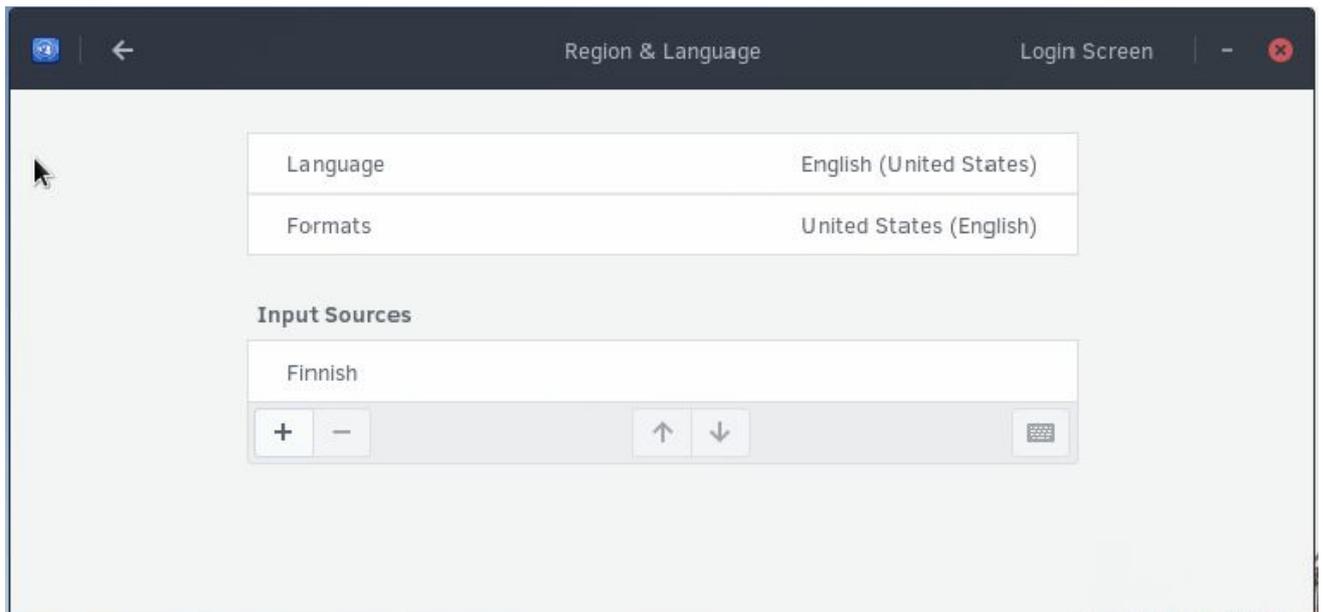
Going back to the Displays section, you also have the option to arrange your displays. Click the “Arrange Combined Displays” to be presented with the following window.



Configuring Language

You can change your language by going to the Budgie Menu, opening Settings, then clicking Region and Language.

You will now be shown the following dialog.



In this dialog, click Language.

The following dialog will appear.



Here, you can select the language you wish your system to use. If it does not appear in this list, click the \vdots button.

You will come across the following dialog where you can type your language.

Select the language from the list and click Done. You **may** need to logout and login to your computer to change the language.

Cancel

Language

Done

No languages found

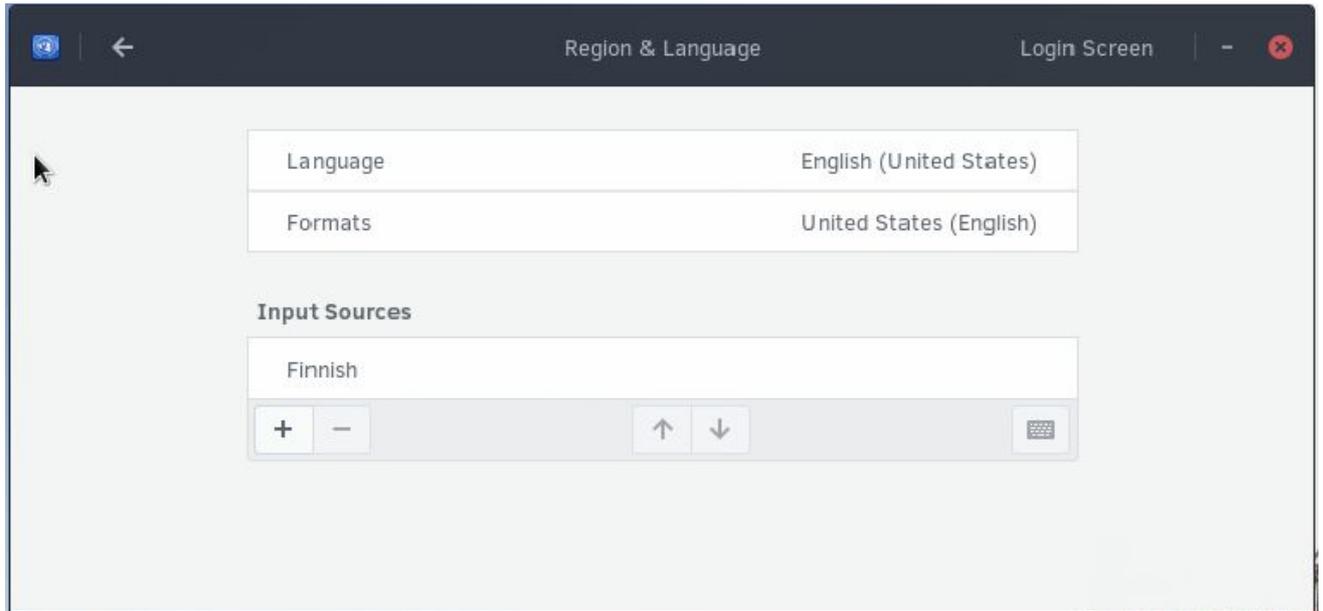
🔍 klingon



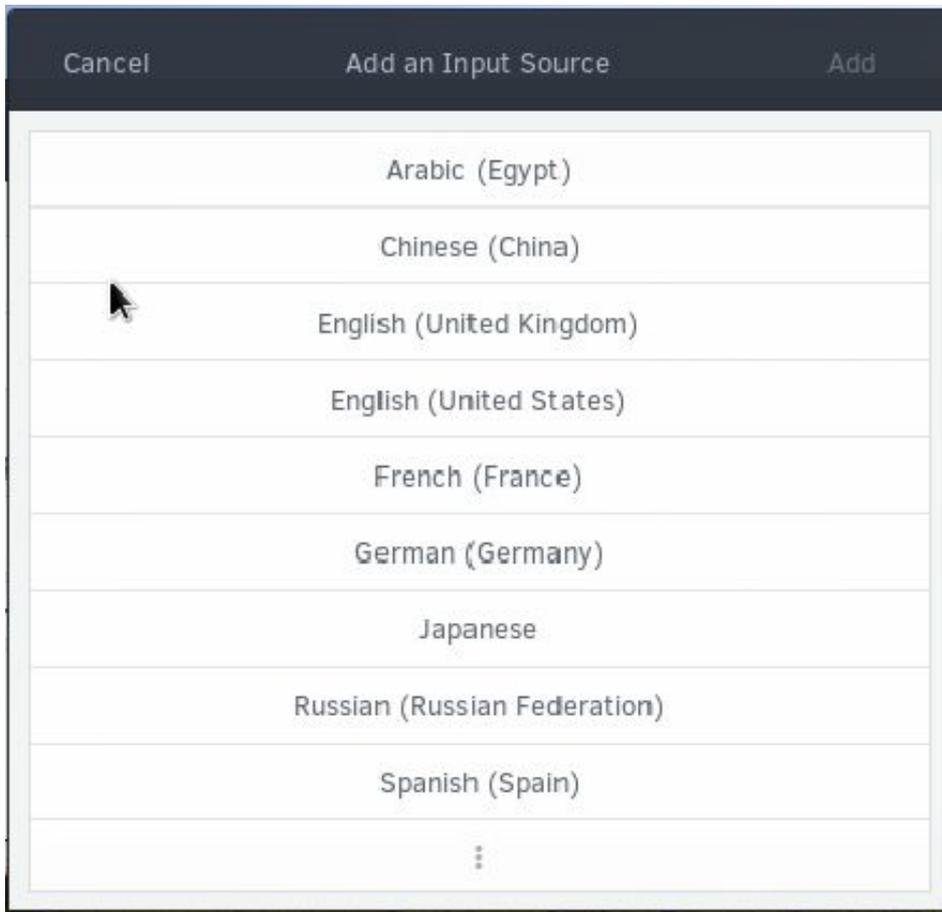
Configuring Keyboard Layout

You can change your language by going to the Budgie Menu, opening Settings, then clicking Region and Language.

You will now be shown the following dialog.

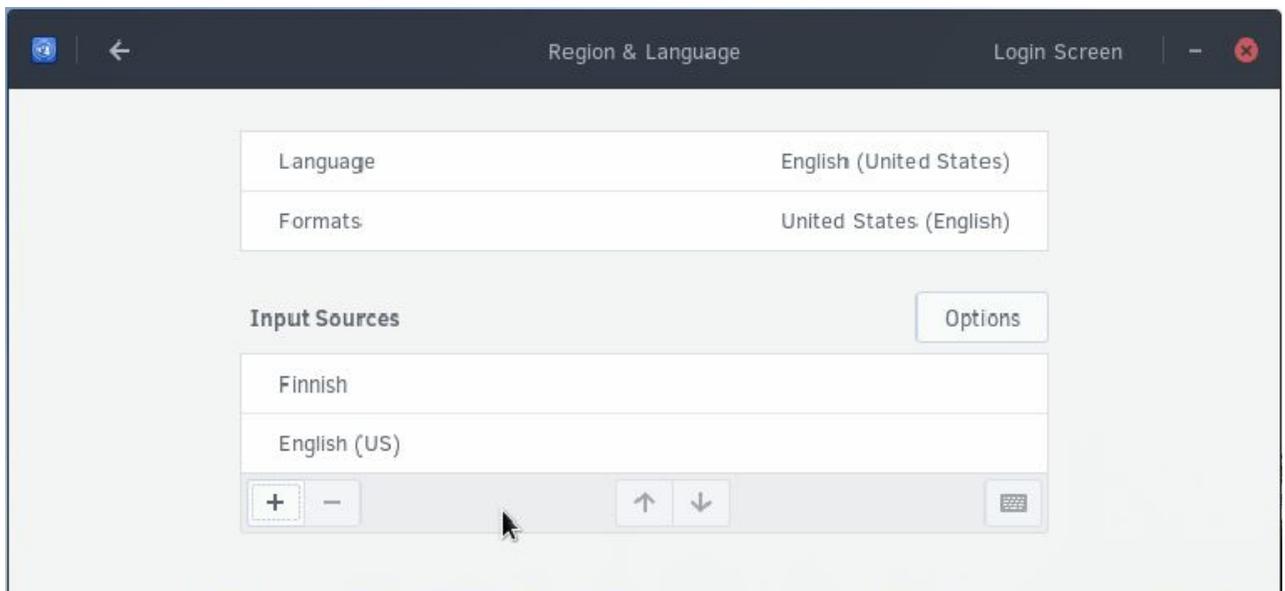


Click the + button to add an input source (keyboard layout). You will be shown the following dialog.



Here, you can select the language and then keyboard layout within each language section. If it does not appear in this list, click the \vdots button. This will enable you to search for the keyboard layout you wish to use.

After choosing the keyboard layout, click Done. You will be brought back to the following dialog with your new keyboard layout. In the image below, we are now using English (US) and Finnish layout.



You can remove a keyboard layout by click on one of the items, for instance Finnish, then clicking the - button.

If you wish to use multiple keyboard layouts, you can switch to them by using:

Windows key + Space

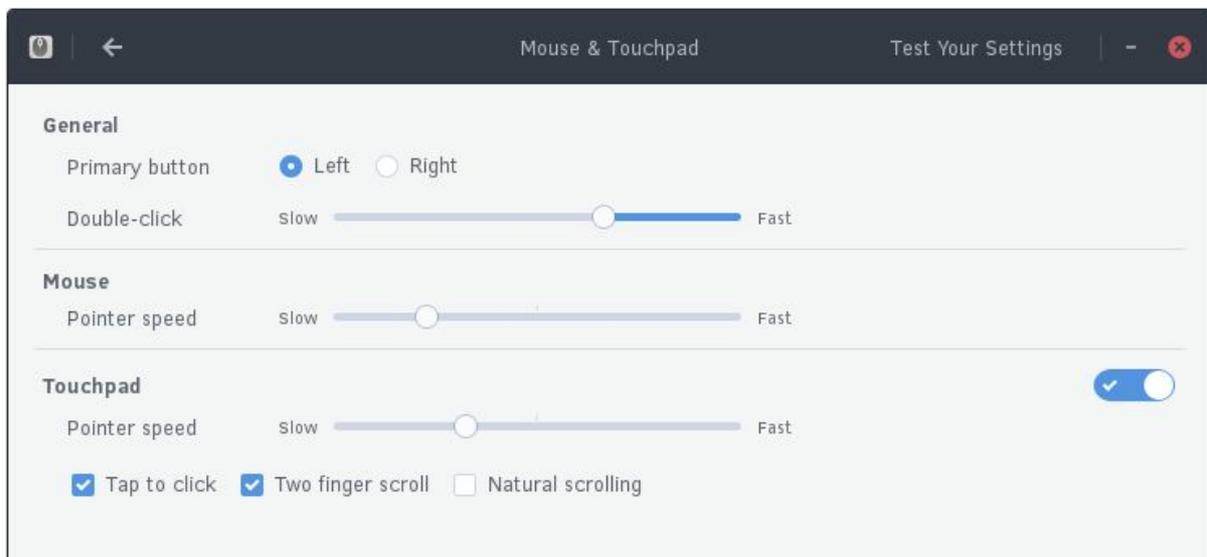
Configuring Mouse and Touchpad

You can configure the settings of your mouse and/or touchpad by going to the Budgie Menu, opening the Settings app, then clicking the Mouse & Touchpad section.

You will be presented with the following window. In this window, you can set if you want your primary button (usually left click) to be left or right, speed of double-clicking, and individual pointer speeds for mouse and touchpad.

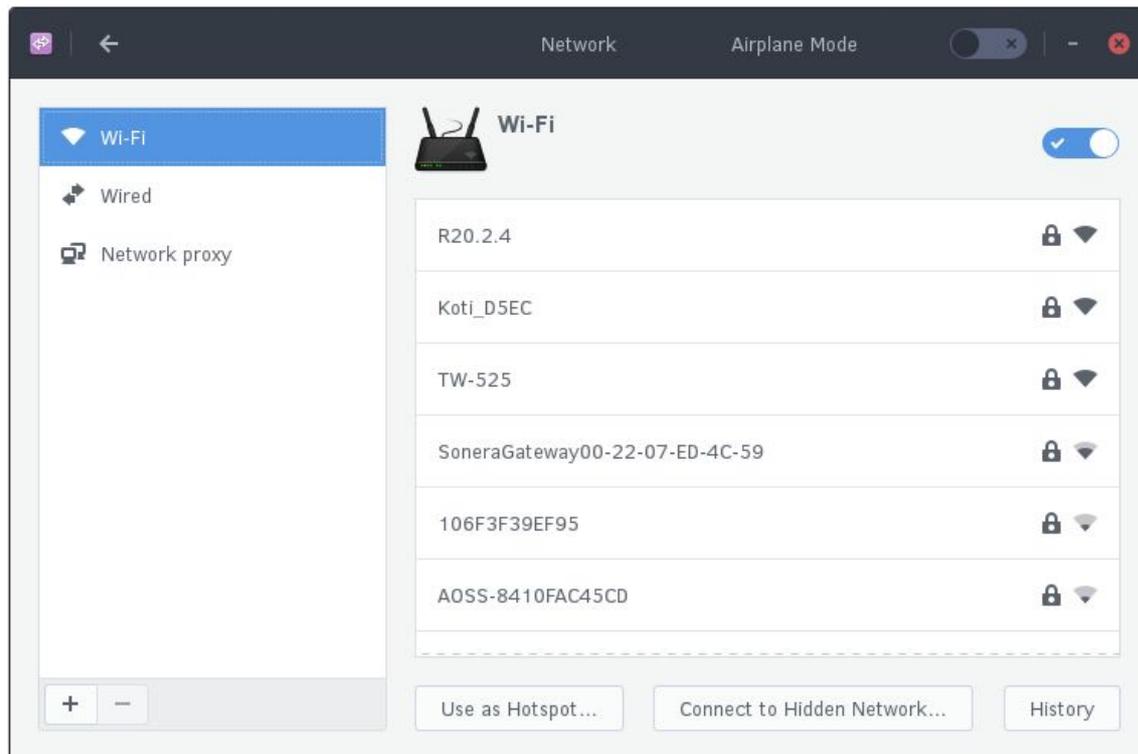
You can also toggle Tap to click (click via touchpad), two-finger scrolling, and “natural scrolling” (reversed scrolling directions).

You can also test your settings by clicking the Test Your Settings button in the top right of the window.



Configuring Network

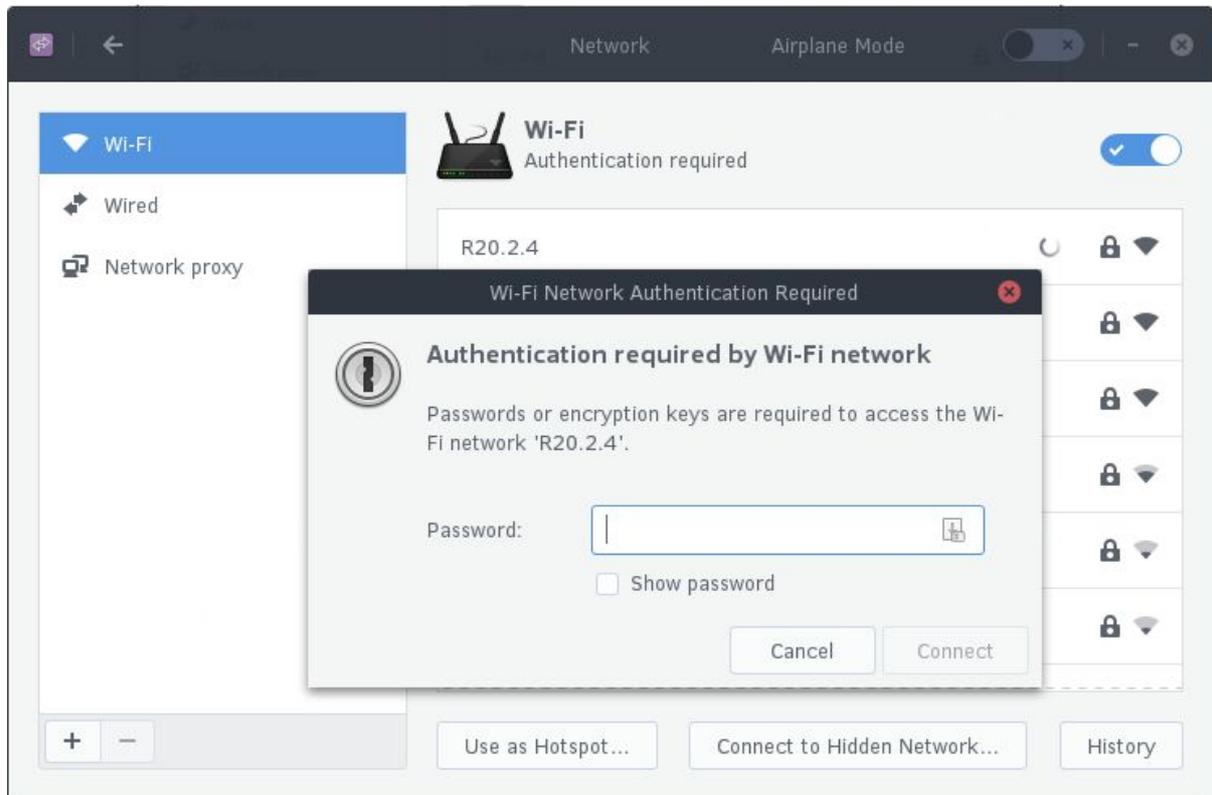
You can configure your network settings such as wireless networking, by going to the Budgie Menu, opening Settings, then clicking Network.



To configure wireless, go to the Wi-Fi section. If your wireless is currently turned off, click the toggle button, leave the Network section, and go back in.

Non-Hidden Network

Click the access point you wish to connect to.



You may now be prompted to authenticate with the network. Type in your password and then click Connect.

If your password is correct, you will now be authenticated with the network.

Hidden Network

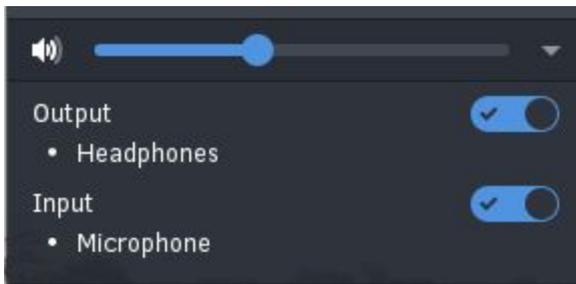
If you wish to connect to a hidden network, click “Connect to Hidden Network”. It will show the following dialog, where you type the SSID (name of the network) and type of security (if any).



If the network is found, you will be prompted to authenticate with the network (if it has security).

Configuring Sound and Sound Devices

You can configure sound devices, change volume and enable / disable devices through two methods



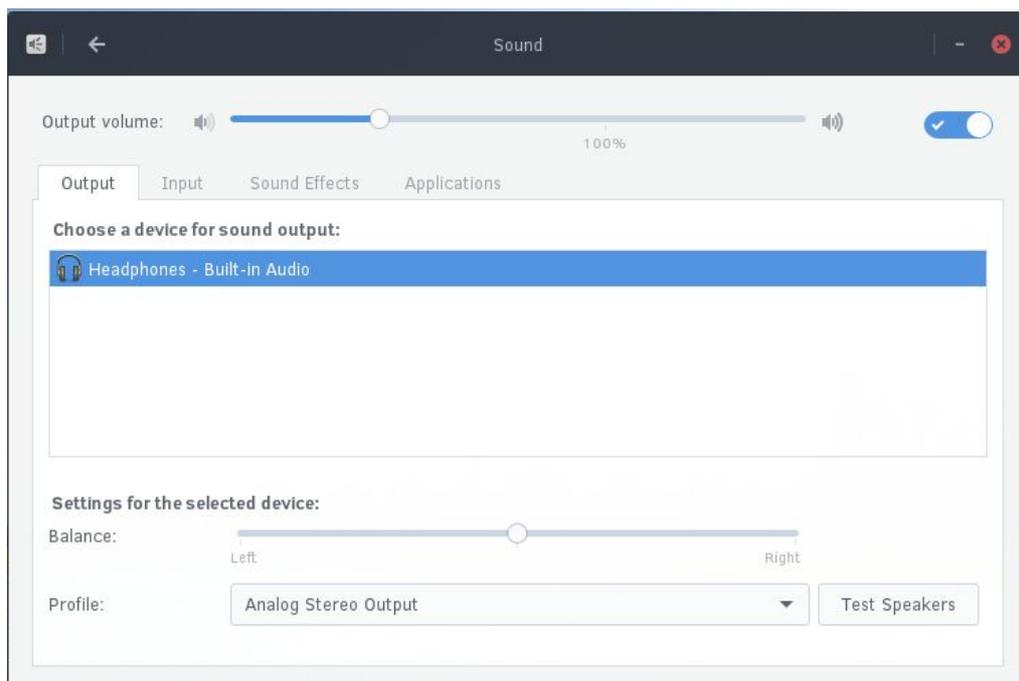
Raven

You can access sound settings via the Sound applet in Raven. Please consult the [Raven section](#) of [Using Desktop](#) for information on access Raven.

Settings app

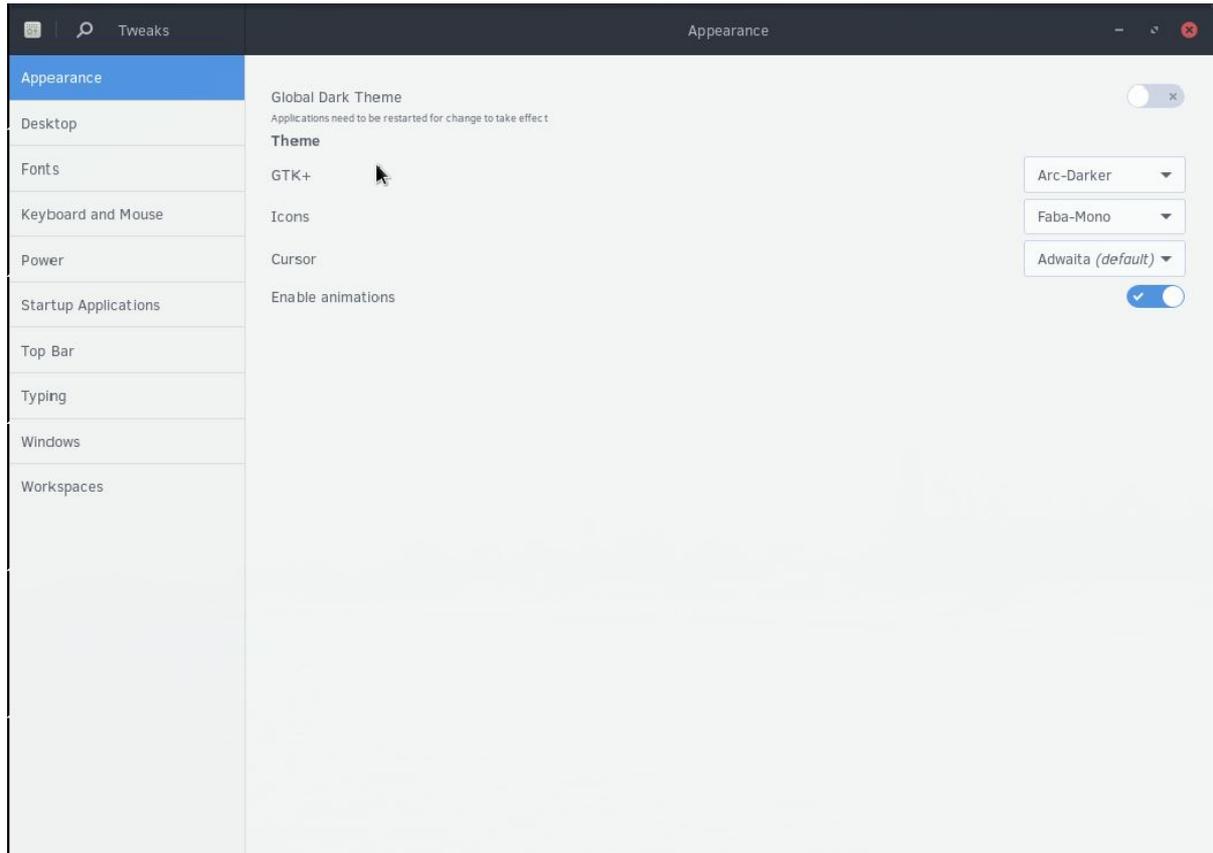
You can access further sound settings, including individual application volume controls, by going to the Budgie Menu, opening Settings, then clicking Sound.

You will be shown the following window.

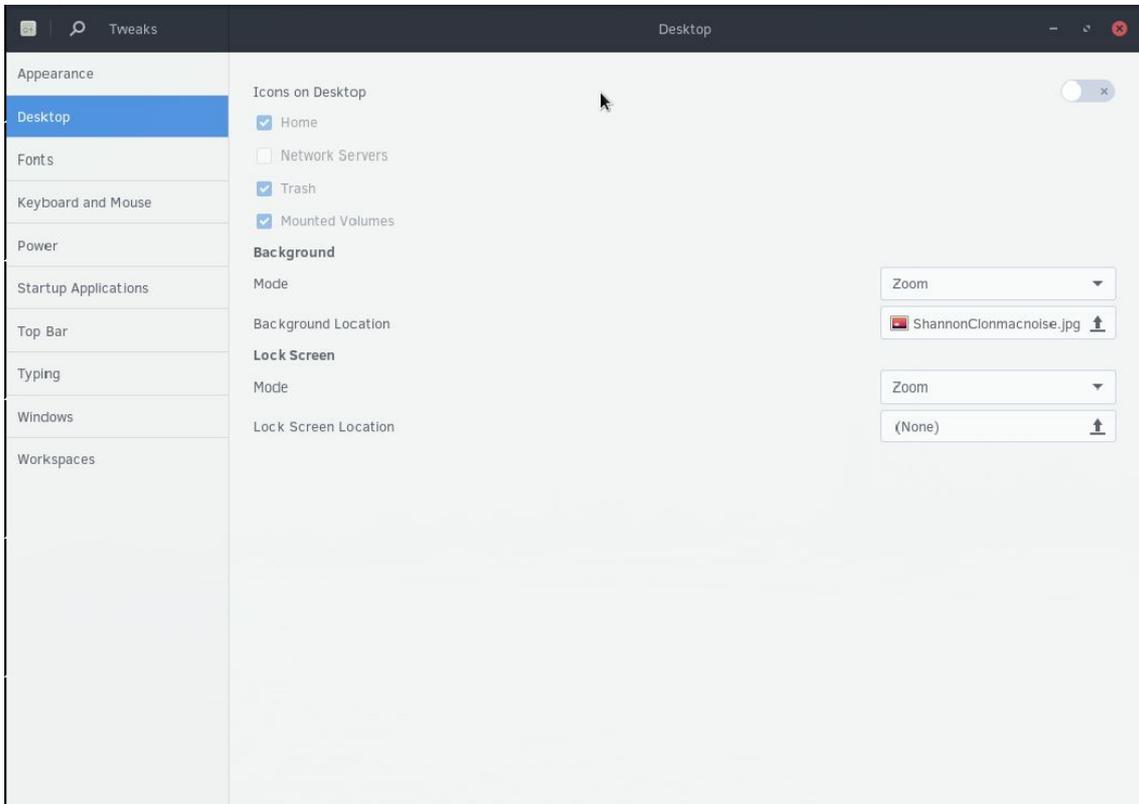


Enable Desktop Icons

You can enable desktop icons by going to the Budgie Menu and typing Tweak Tool. You will see the following program.



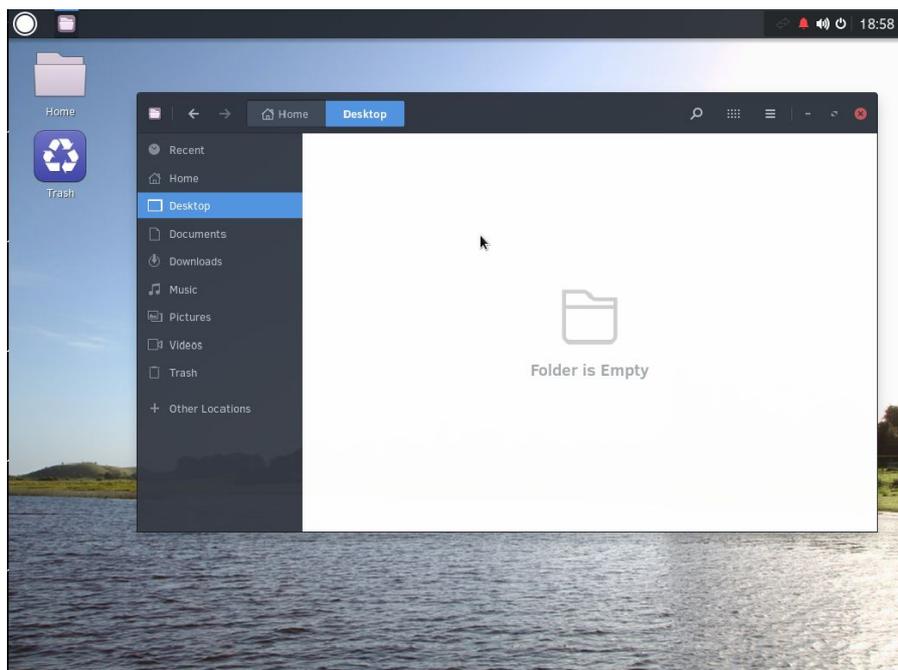
Now click the Desktop section from the sidepane.



From the desktop section, click the toggle button to the right of Icons on Desktop. You can also choose what is automatically shown on the desktop.

You may now add things to your Desktop by:

1. Open the file manager
2. Move the files you want to the **Desktop folder** (as shown in the image below).

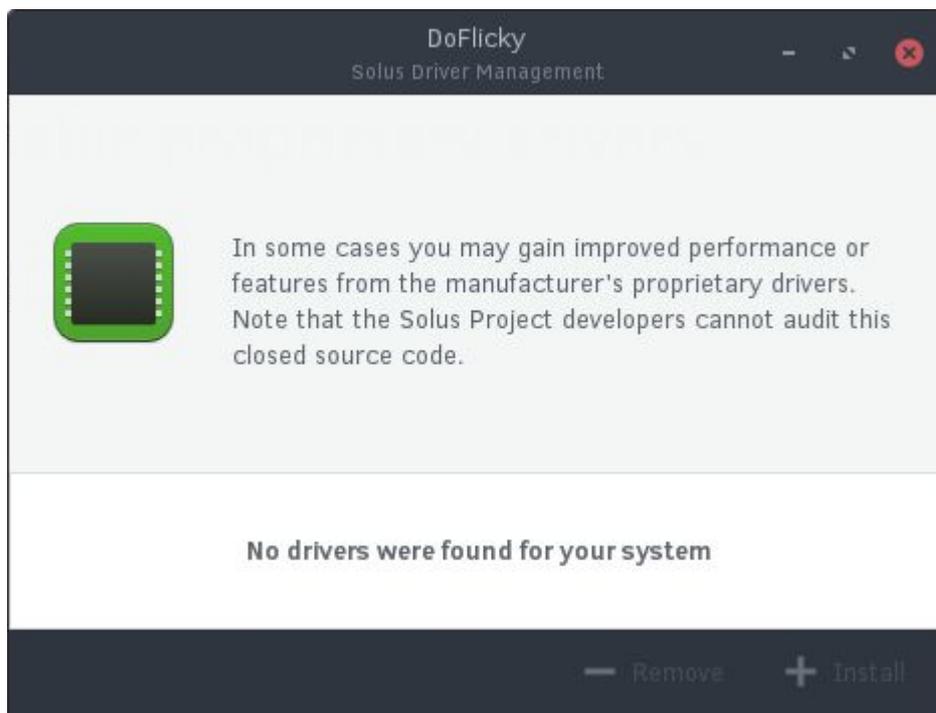


Enable Proprietary Drivers

Enabling proprietary drivers may improve performance or certain features, however they are usually not necessary for normal daily usage.

You can enable proprietary AMD and Nvidia drivers by going to the Budgie Menu and opening Hardware Drivers.

You will now be shown the following program.



If there are proprietary drivers that can be installed, they will show up in the box below the description. You can click the item you wish to install and click Install. A reboot will be required to use the newly installed driver.

Other System Settings

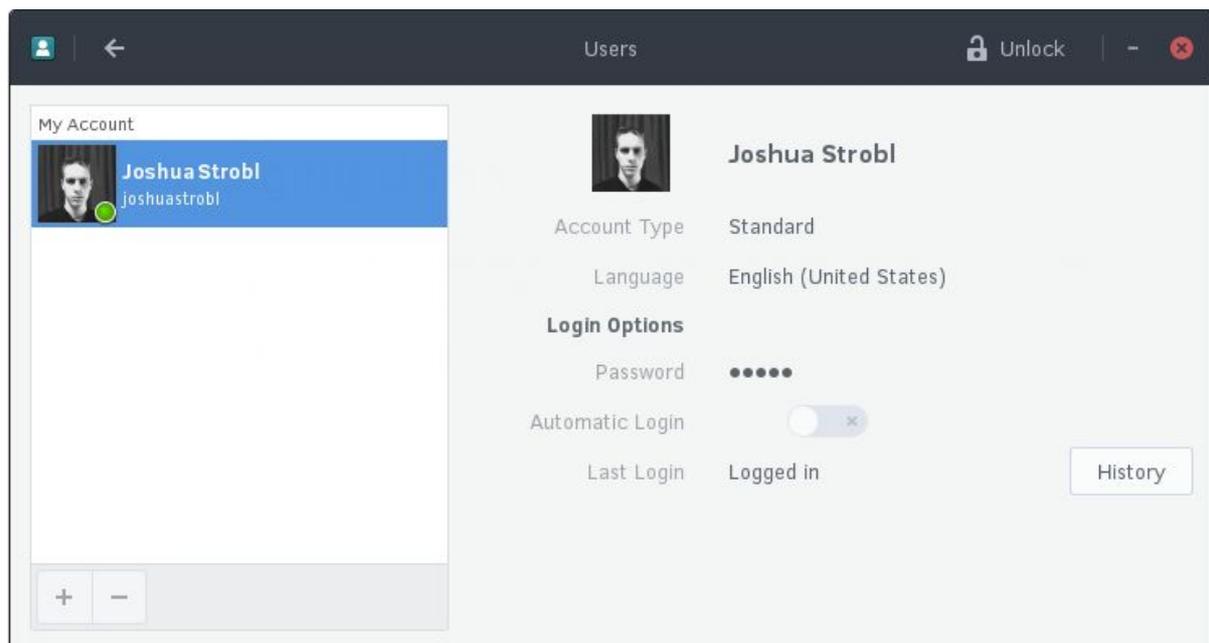
You can access other system settings via the Settings app. Below is a table of commonly changed system settings and their location in the Settings app.

Action	Location
Configuring Bluetooth devices	Bluetooth
Configuring Wacom Tablets	Wacom Tablet

Managing Users

In this section, we will be reviewing how to add and remove users on your Solus system. Before we begin, go to the Budgie Menu, open the Settings app, then go to Users.

You will be brought to a window similar to the one shown below.



To manage your or other's accounts, you first need to authenticate. Click the Unlock button in the top right corner and type the root password (if you are the only user, this is likely the same password you use to log in).

In the event it is correct, the Unlock button will change to Lock and the Add / Remove buttons will be clickable.

Adding a User

To add a user, click the + button in the bottom left corner of the Users window. This will show the Add User window (shown below).

Cancel Add User Add

Account Type Standard

Full Name

Username

This will be used to name your home folder and can't be changed.

Password

Allow user to set a password when they next login

Set a password now

Password

Mix uppercase and lowercase and use a number or two.

Verify

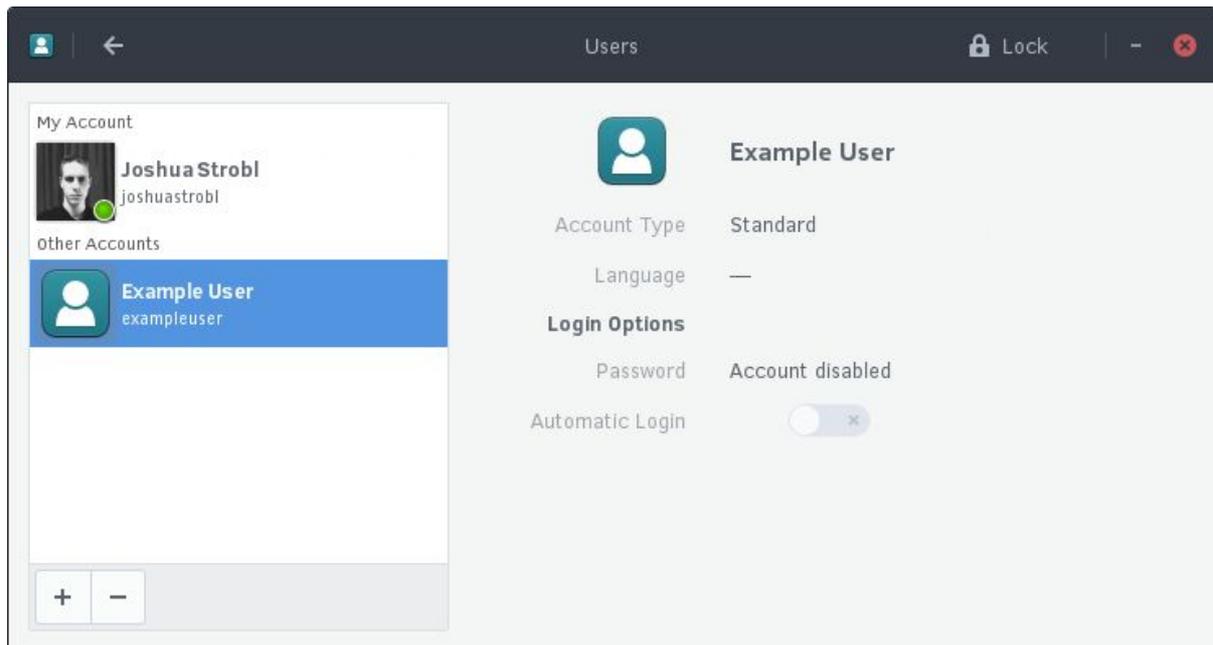
If the user will not need administrator privileges, keep it to “Standard” Account Type. If they will need administrator privileges, click the dropdown and choose Administrator.

Next fill in the Full Name and Username.

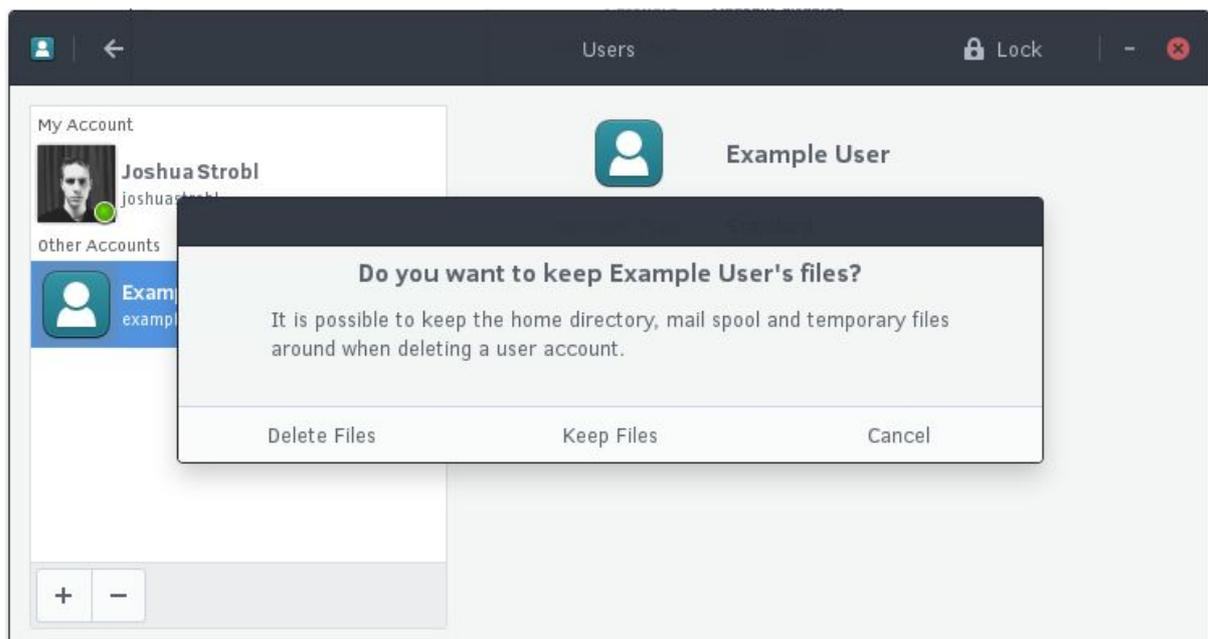
You will also have the option to let the user choose their own password. Optionally you can set it for the user. Click Add when you are finished. The User is now added.

Removing a User

To remove a user, select the user under the “Other Accounts” section and click the - button.



Upon clicking the remove the user, you will be brought to the following window.



In this window, you have the option to keep their files, delete the files, or cancel the removal of the user's account.

Advanced

We've built engine. You get to tune it.

Delivering software on the system

Software is delivered for Solus through the Solus repository. In the event you wish to provide open source software via the repository, we provide a [Packaging Guide](#) to help get you started.

Getting involved

Google+ and Forums

With so many new users joining, there are always more people needing help. A great way to help us out, would be to help out our users on the [Solus Project Forums](#) as well as [Google+ community](#).

IRC

Internet Relay Chat is a great way to discuss issues and development with the community, and project developers. It's also a great place for getting support, but remember due to timezone differences there might not always be people present to answer your query immediately.

- [#Solus](#) - Main project IRC channel for discussions and support
- [#Solus-Chat](#) - Off topic channel for Solus
- [#Solus-Dev](#) - Development talks, project developers invariably present.

These channels are available on the Freenode IRC server.

Reporting issues

You can report issues via the [Solus bug tracker](#).

Using the Package Manager

Solus uses the eopkg package management system to deliver software to the end-user. You can read about the package manager [here](#).

Other Resources

- [Official website](#)
- [Blog](#)
- [Solus Release Cycle](#)
- [Solus wiki](#)