Power Suite v2.0.3
User Manual

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Installation

Requirement

- Ubuntu 20.04 or 22.04 for Intel x86_64
- Minimum hard disk space requirement is 64GB

Install

Step1. Download PowerSuite 2.0 installer “power_suite_installer-2.0.x.tar.gz” and put it into your device.

Step2. Open a Terminal from Ubuntu applications and change to the path of the file “power_suite_installer-2.0.x.tar.gz”

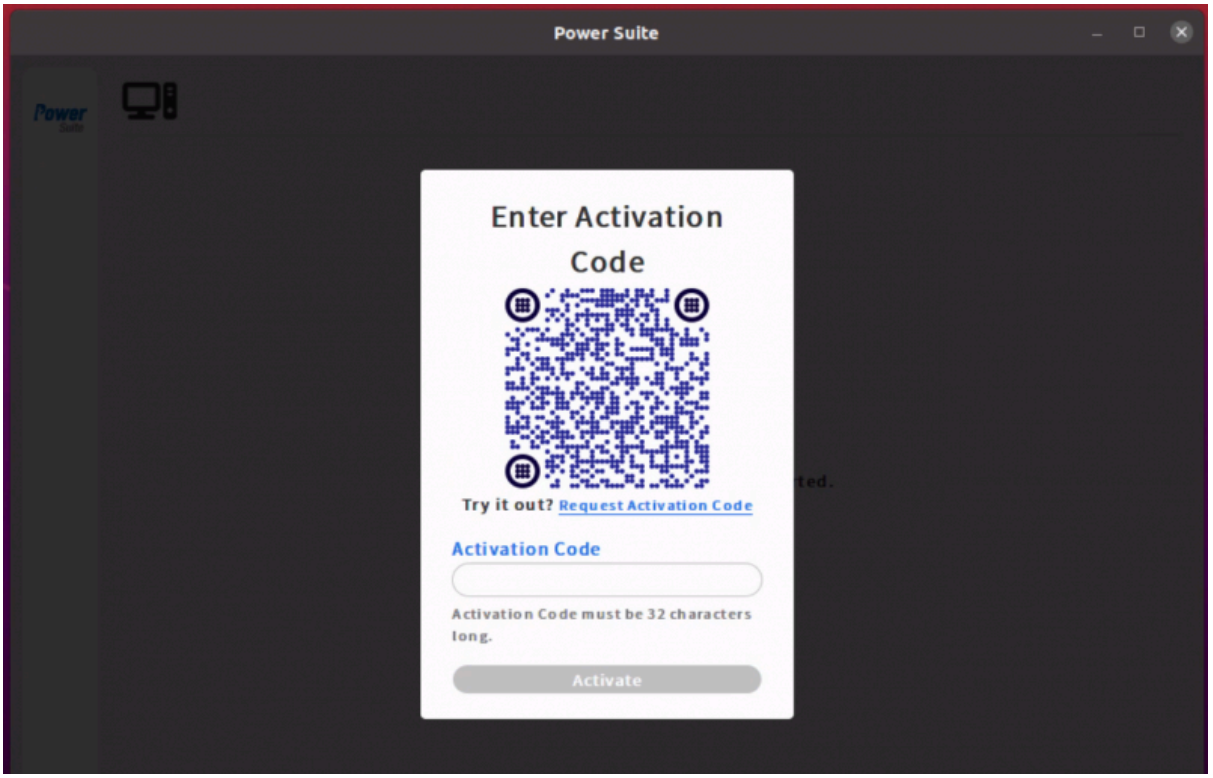
Step3. Run below command to install PowerSuite 2.0:

```
$ tar zxvf power_suite_installer-2.0.x.tar.gz
$ chmod +x power_suite_installer.run
$ ./power_suite_installer.run
```

Step4. After the installation is complete, please restart your computer.

Activation Code

When opening the Power_Suite for the first time, if the system verifies that the device is not an Advantech device, you will be asked to apply for an activation code by QR code or URL, after entering the activation code, you can use it normally.



Uninstall

Step1. Open a Terminal from Ubuntu applications.

Step2. Run below command to uninstall PowerSuite 2.0:

```
$ cd /usr/local/power_suite
$ ./powersuite_uninstall.sh
```

Image Manager

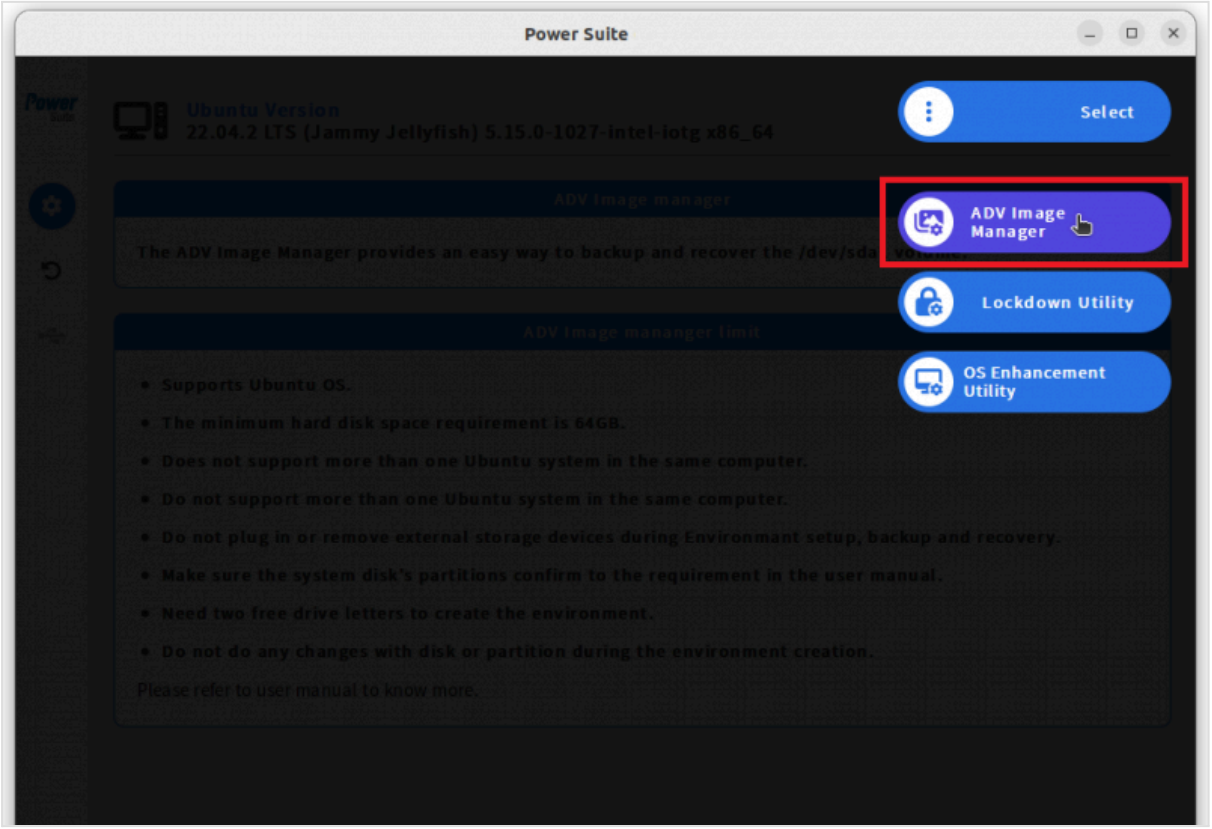
Environment Settings

ADV Image Manager need to create the a partition at the system disk to store the backup image, there are some limitations require user attention and compliance:

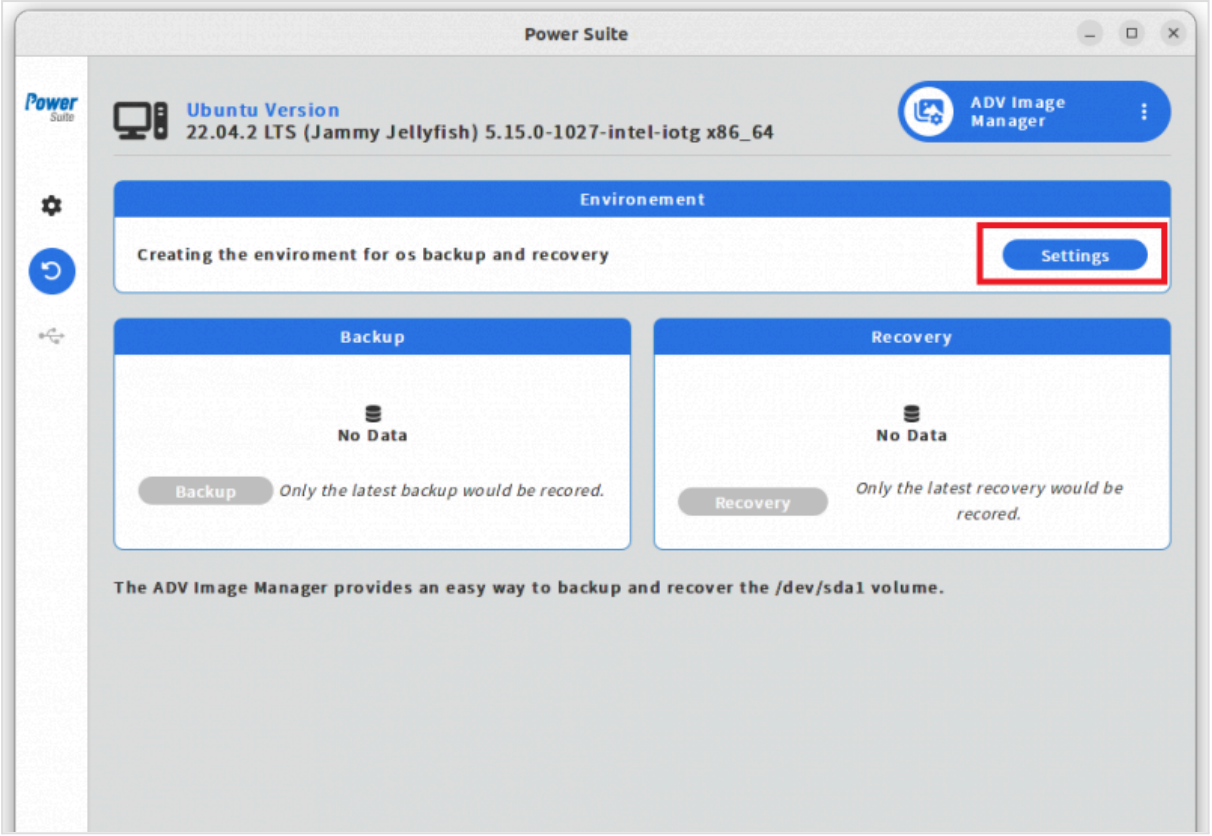
- The minimum hard disk space requirement is 64GB.
- Does not support more than one Ubuntu system in the same computer.
- Do not plug in or remove external storage devices during Environment setup, backup and recovery.
- Do not do any changes with disk or partition during the environment creation.

To start the partition creation, please follow below steps.

Step1. Select the “ADV Image Manager” page.

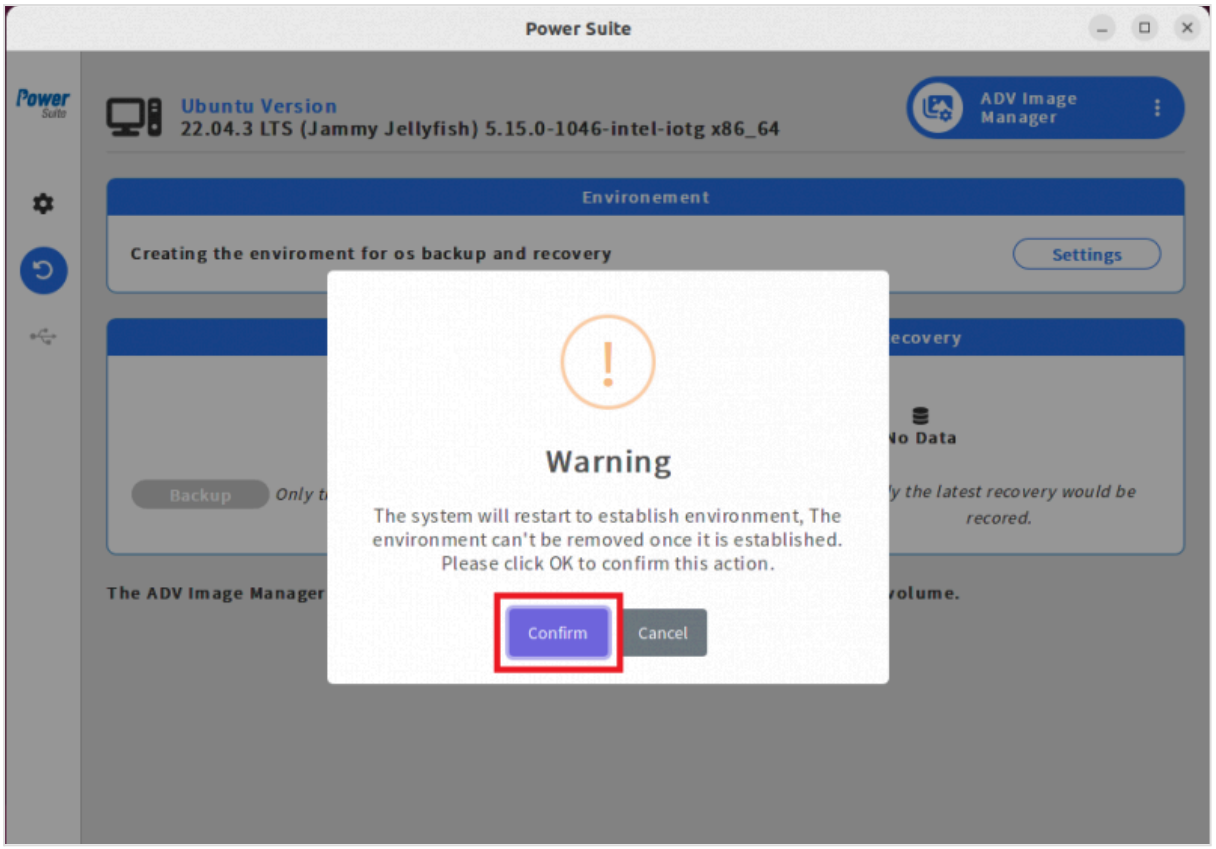


Step2. In the Environment area, press “Settings” to setup environment.



NOTE: The system will restart to establish the environment, The environment can't be removed once it is established.

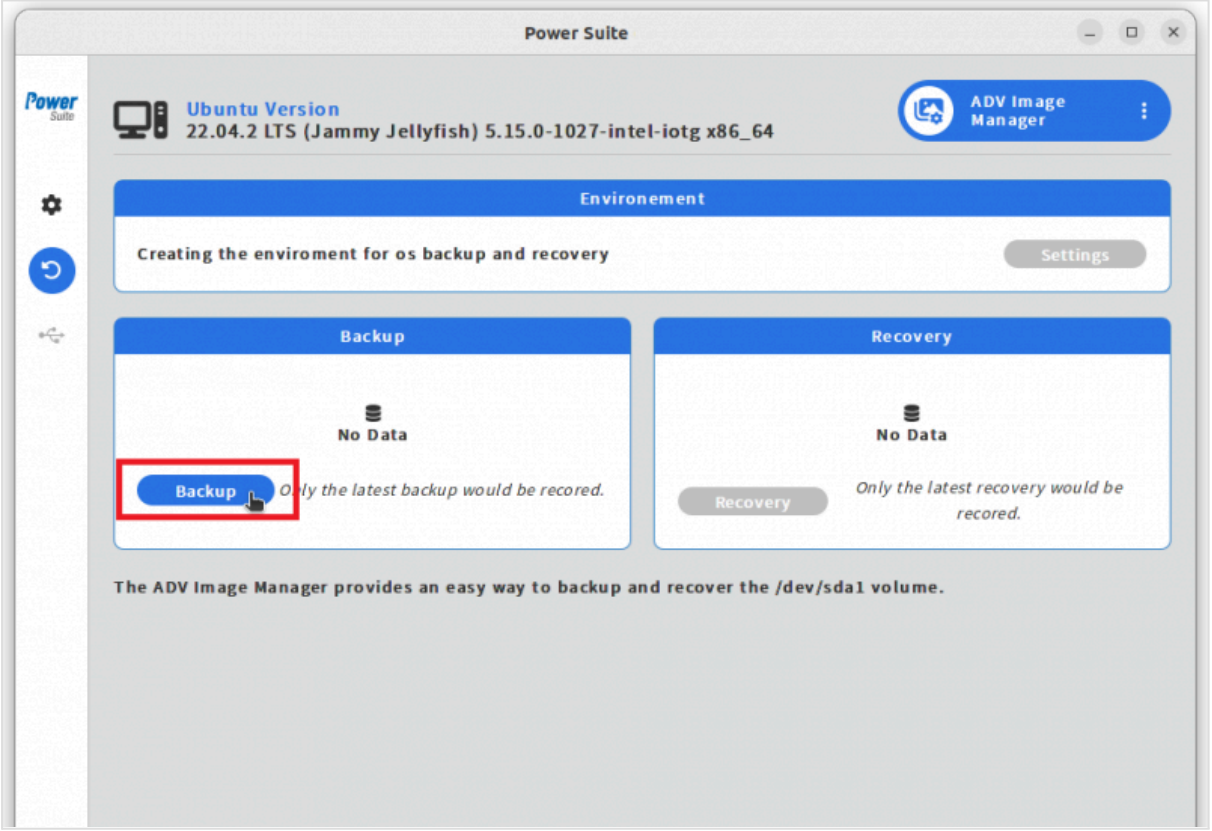
Step3. Press “Confirm” to close the warning message and continue creating the environment.



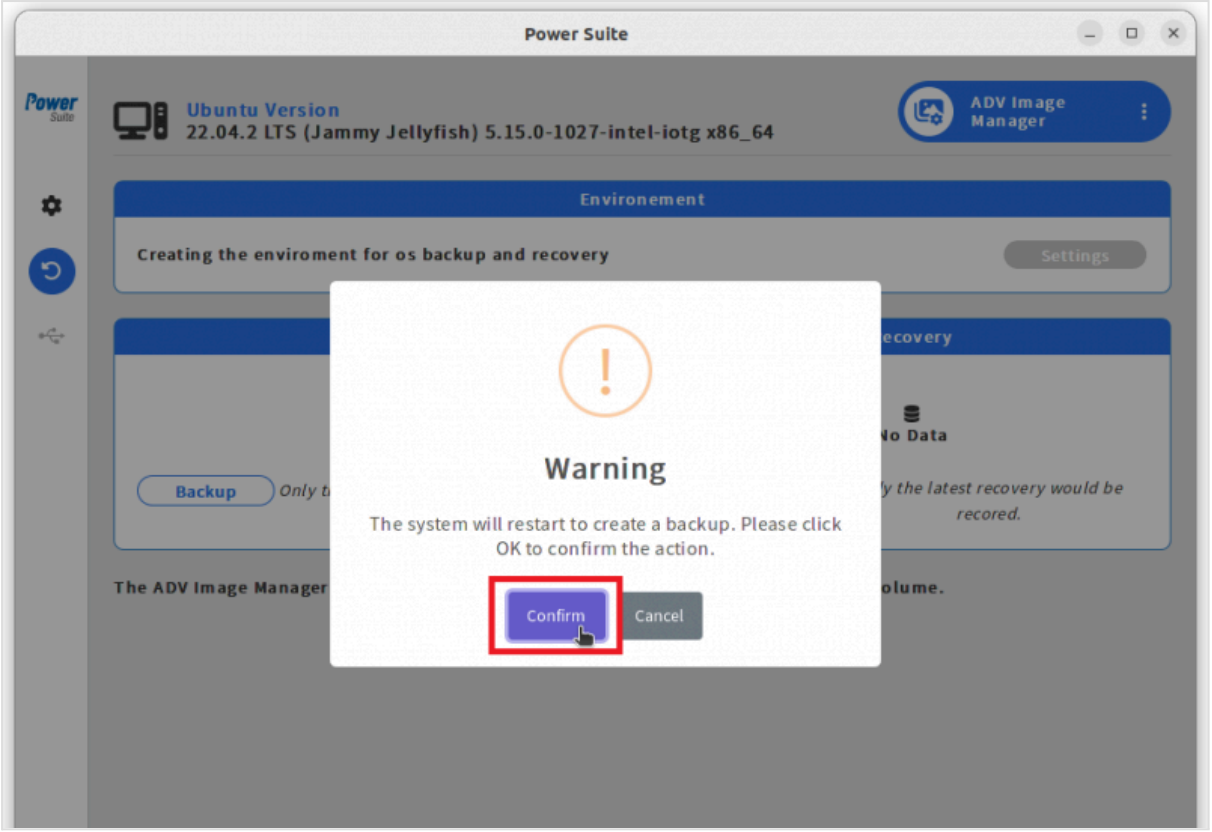
NOTE: When the environment is created successfully, The button Settings will be hidden.

Backup

Step1. Click the “Backup” button to do system backup.

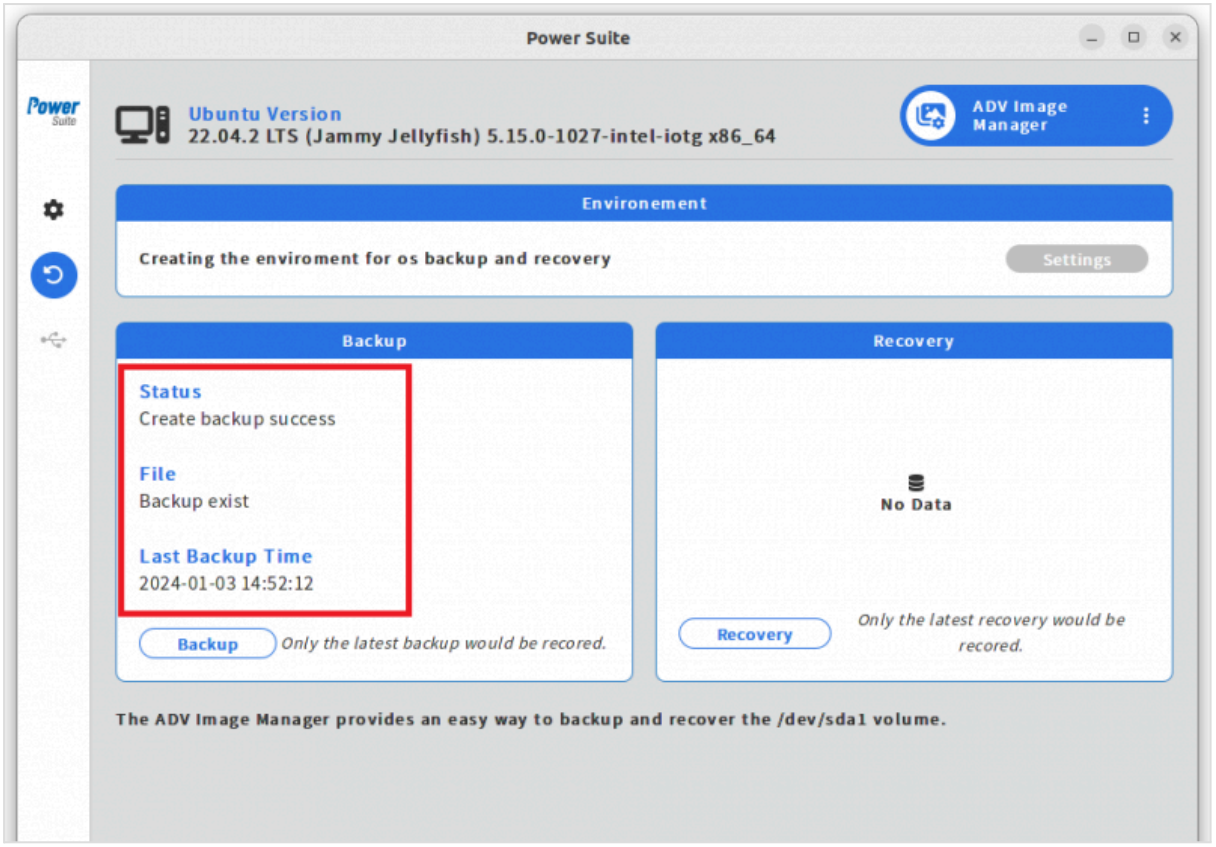


Step2. Press “Confirm” to do system backup, the system will restart to backup mode and start backup.



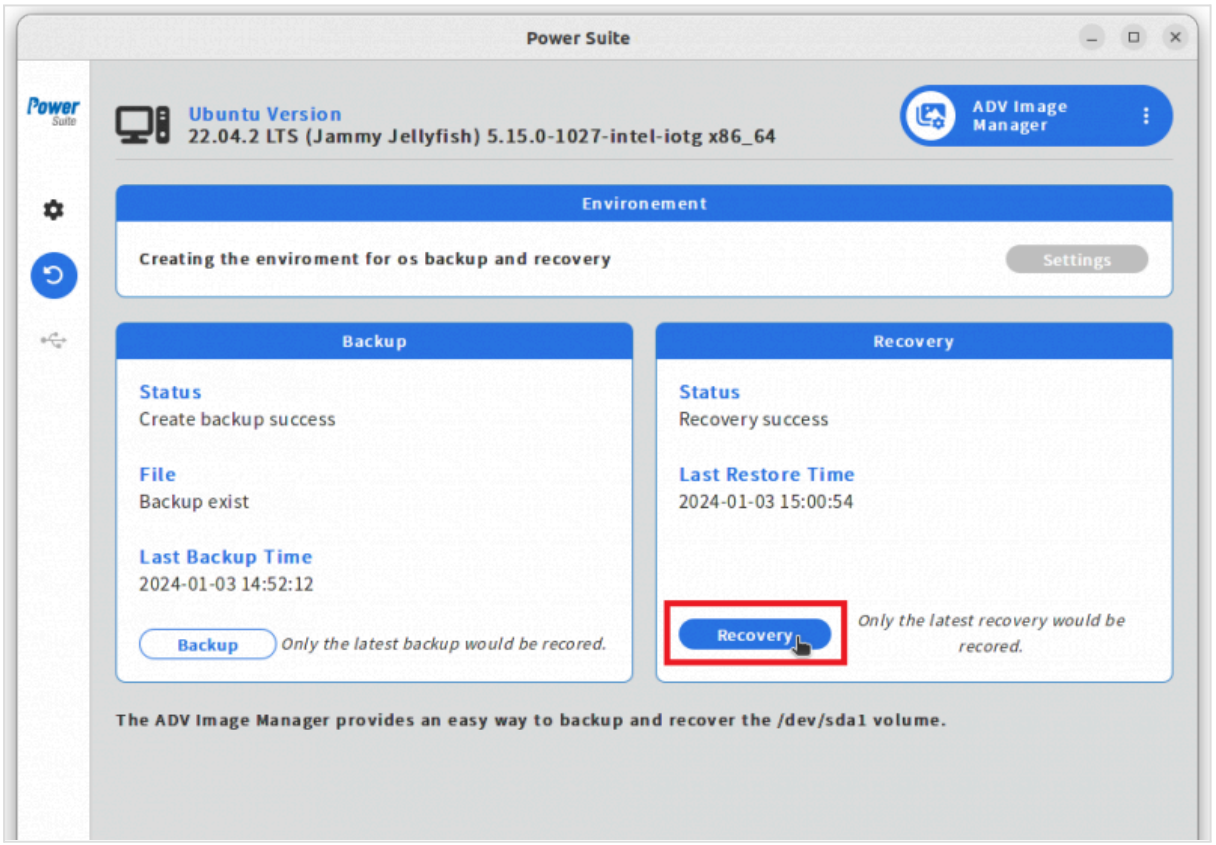
NOTE: Please don't close the ADV Image Manager after the backup starts.

Step3. Verify the backup status and timestamp after backup completed.

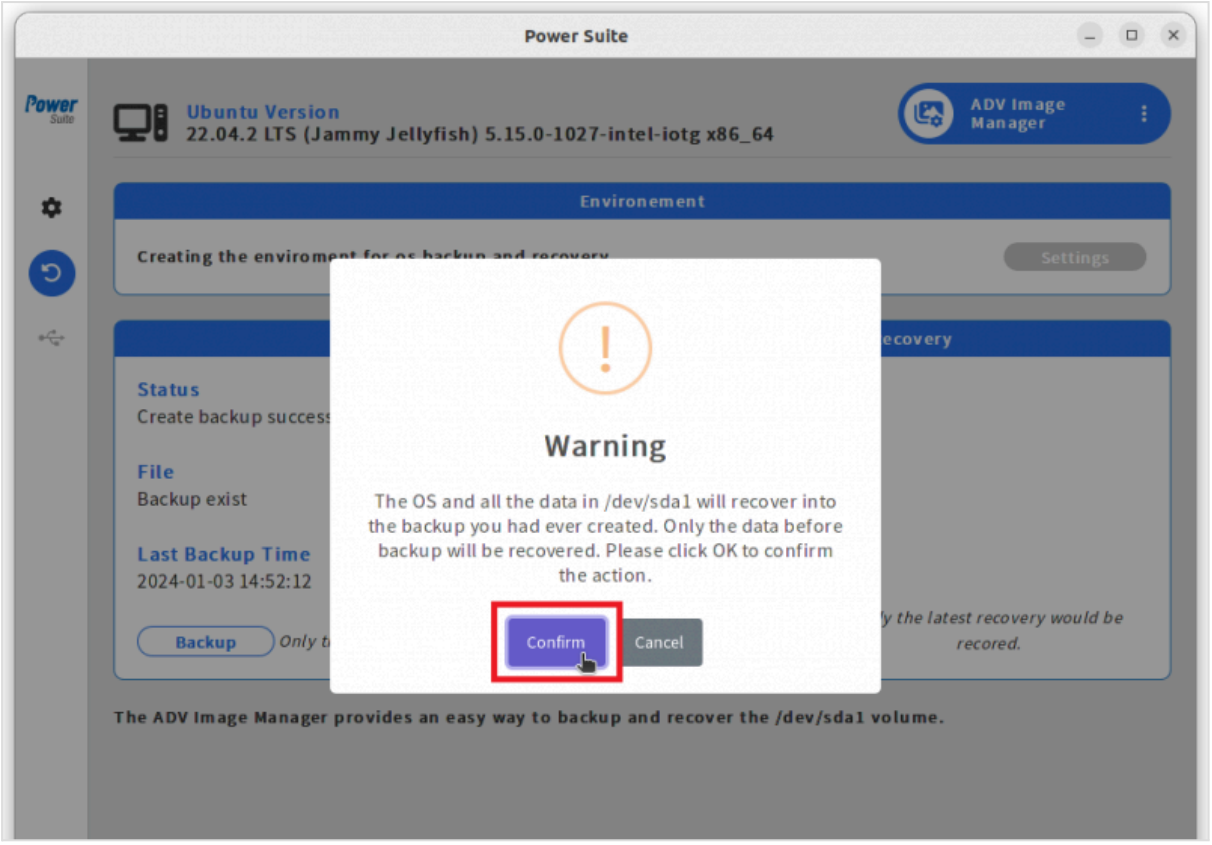

Power Suite
Power Suite
Ubuntu Version
22.04.2 LTS (Jammy Jellyfish) 5.15.0-1027-intel-iotg x86_64
ADV Image Manager
Environement
Creating the enviroment for os backup and recovery
Settings
Backup
Status
Create backup success
File
Backup exist
Last Backup Time
2024-01-03 14:52:12
Backup
Only the latest backup would be recored.
Recovery
No Data
Recovery
Only the latest recovery would be recored.
The ADV Image Manager provides an easy way to backup and recover the /dev/sda1 volume.

Recovery

Step1. Click the “Recovery” button to do system backup.

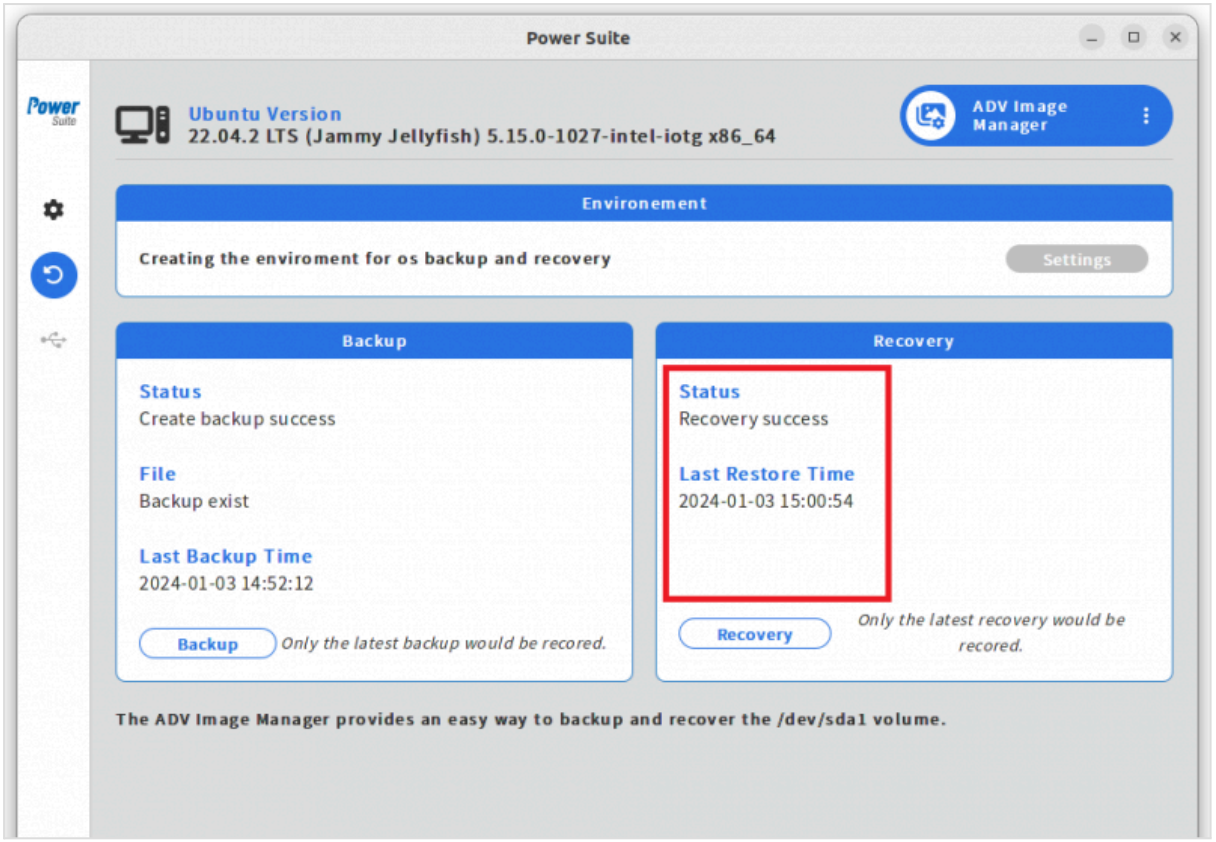


Step2. Press “Confirm” to do system Recovery, the system will restart to Recovery mode and start Recovery.



NOTE: Please don't close the ADV Image Manager after the Recovery starts.

Step3. Verify the Recovery status and Recovery timestamp.


Power Suite
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22.04.2 LTS (Jammy Jellyfish) 5.15.0-1027-intel-iotg x86_64
ADV Image Manager
Environement
Creating the enviroment for os backup and recovery
Settings
Backup
Status
Create backup success
File
Backup exist
Last Backup Time
2024-01-03 14:52:12
Backup
Only the latest backup would be recored.
Recovery
Status
Recovery success
Last Restore Time
2024-01-03 15:00:54
Recovery
Only the latest recovery would be recored.
The ADV Image Manager provides an easy way to backup and recover the /dev/sda1 volume.

Image Deployer

Brief

- Image Deploy is a function helps user make a rescue usb (with backup image)
  - rescue image can select source internal image(hidden disk partition), or external image(system path)

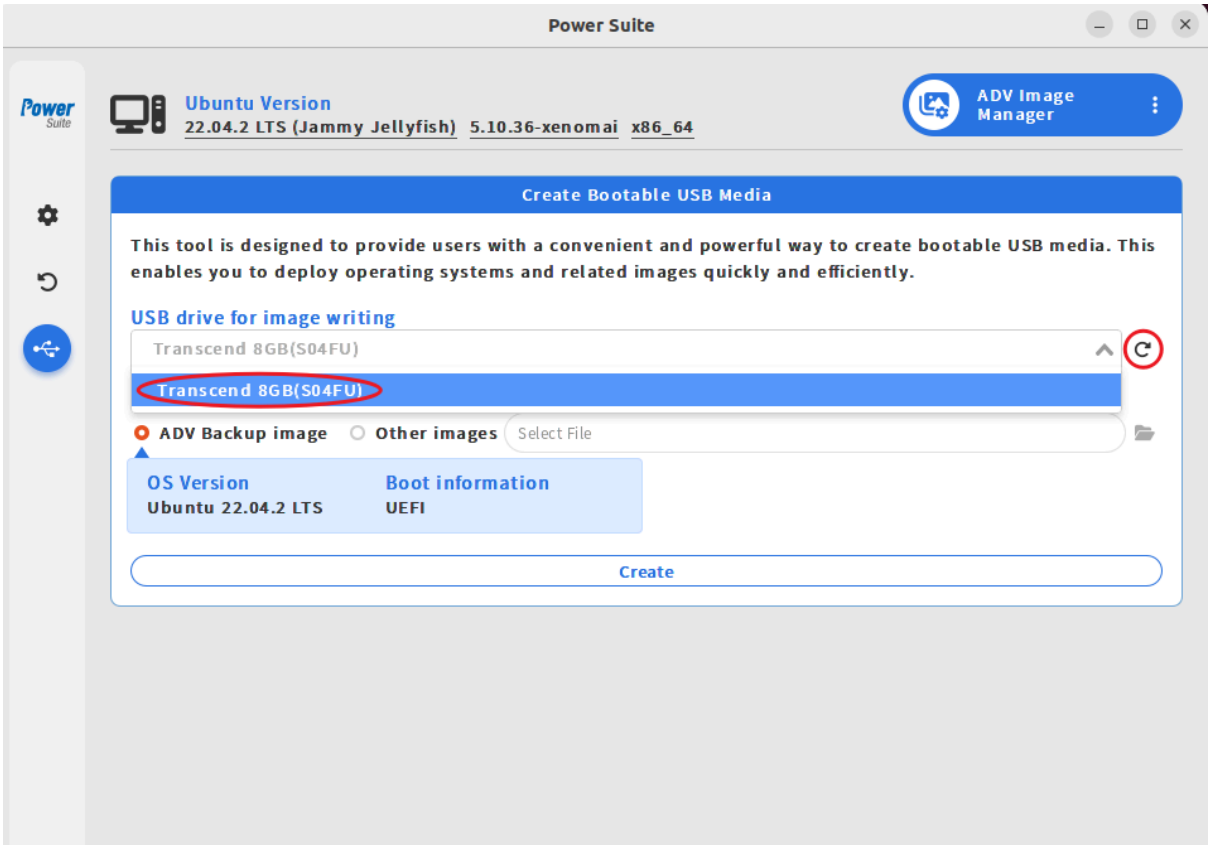
Limitation

- USB size suggests equal to system used size.
- USB Deploy Rescue only Ubuntu system partition.
- Make USB Image Deployer Duration

Copy ~10G images with 3.0 usb, need 5~10 minutes.

Steps

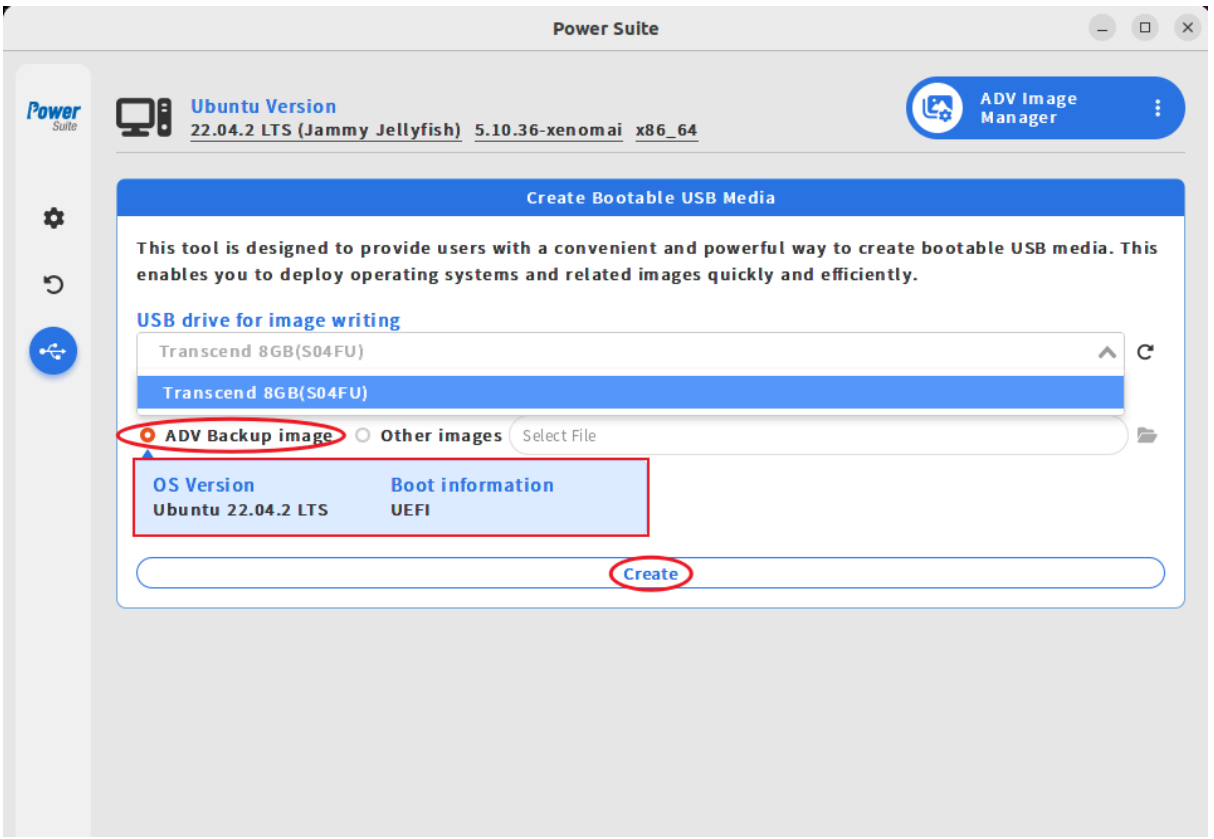
1. Select USB



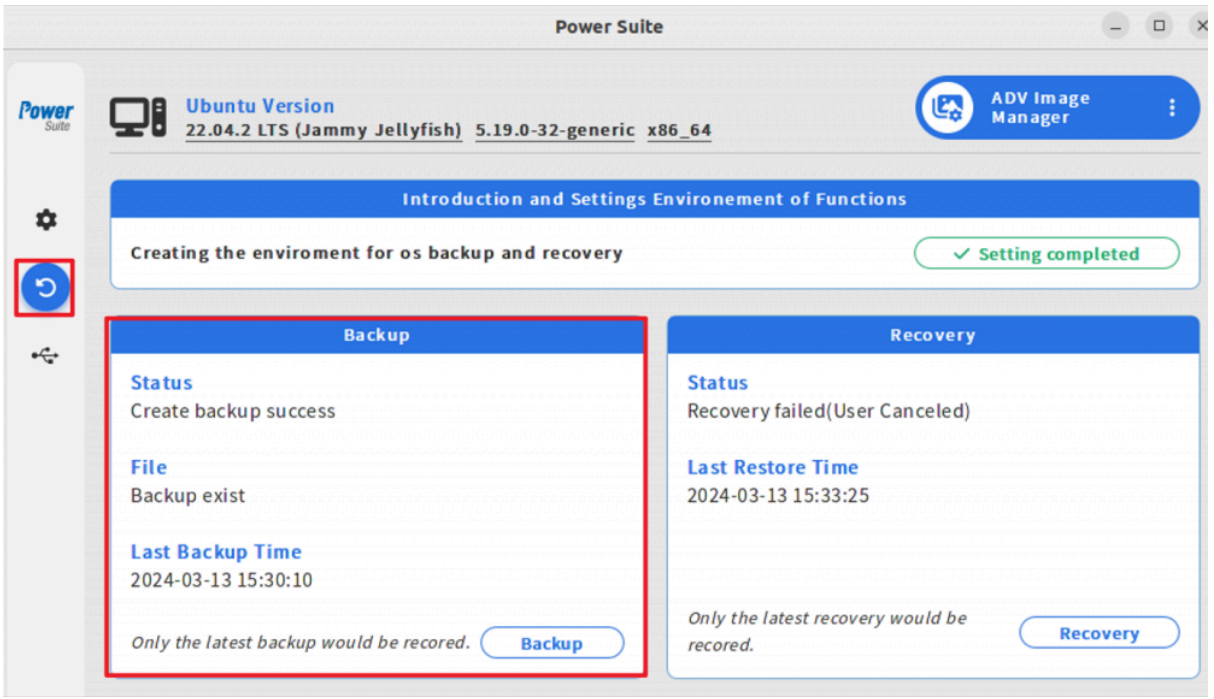
2. **Select image** (internal or external)

- **Internal**

If successful, it will see an image version.

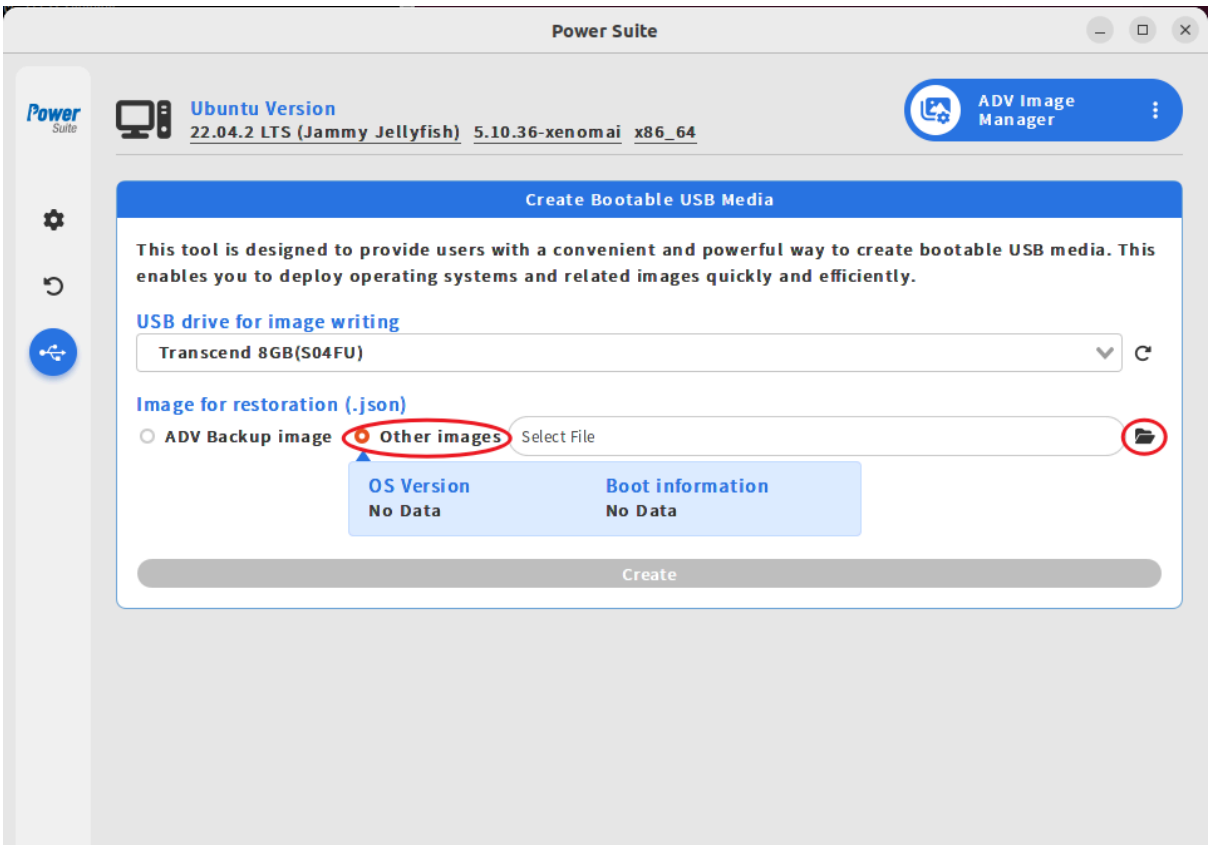


Note: Switch to backup subpage and check is system already backup or not

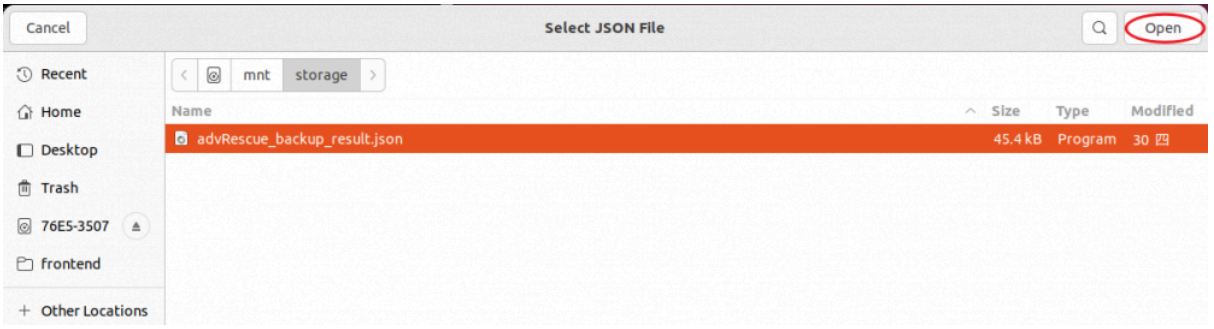


- **External**

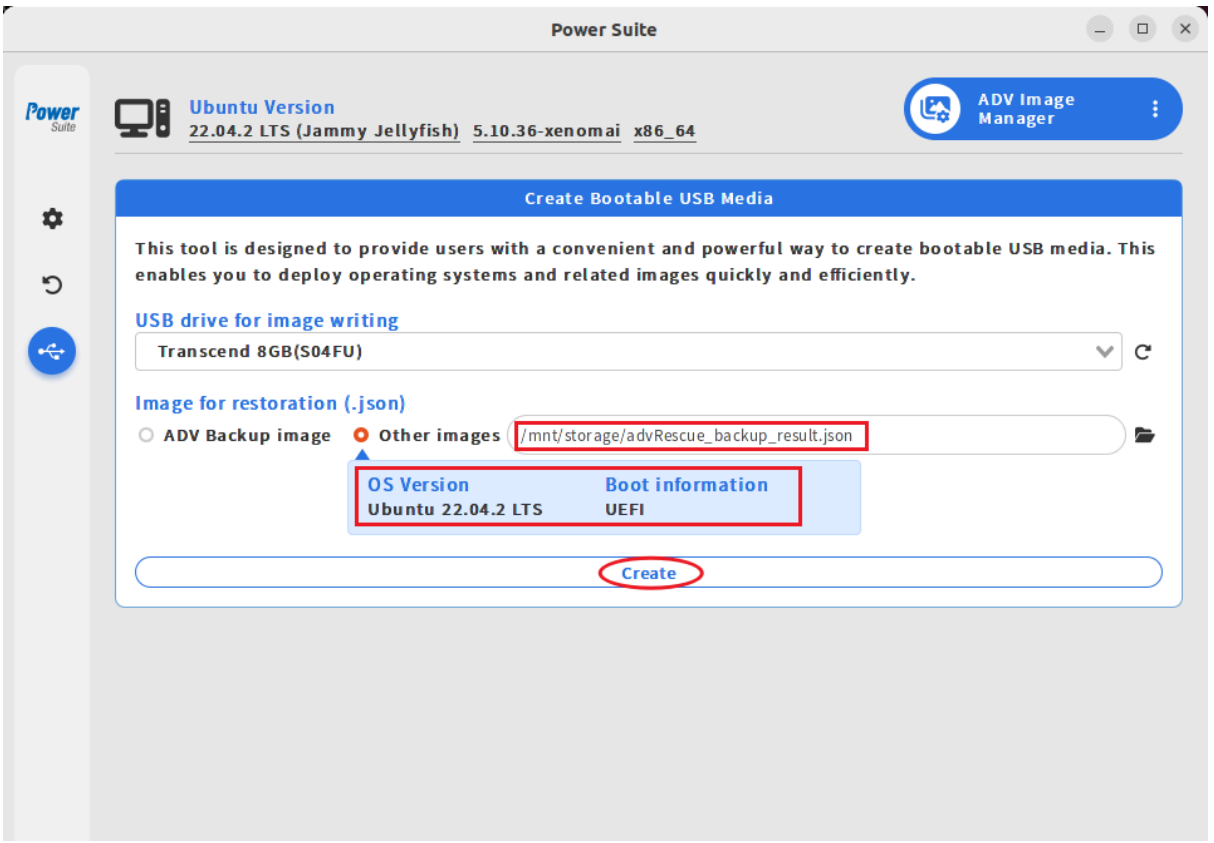
Select "Other image" and Click Select File



Select recovery image description file(*.json)



If successful, you will see the path like the following.



3. Finally, click "Create" to Start Making usb Image Deployer

OS Enhancement Utility

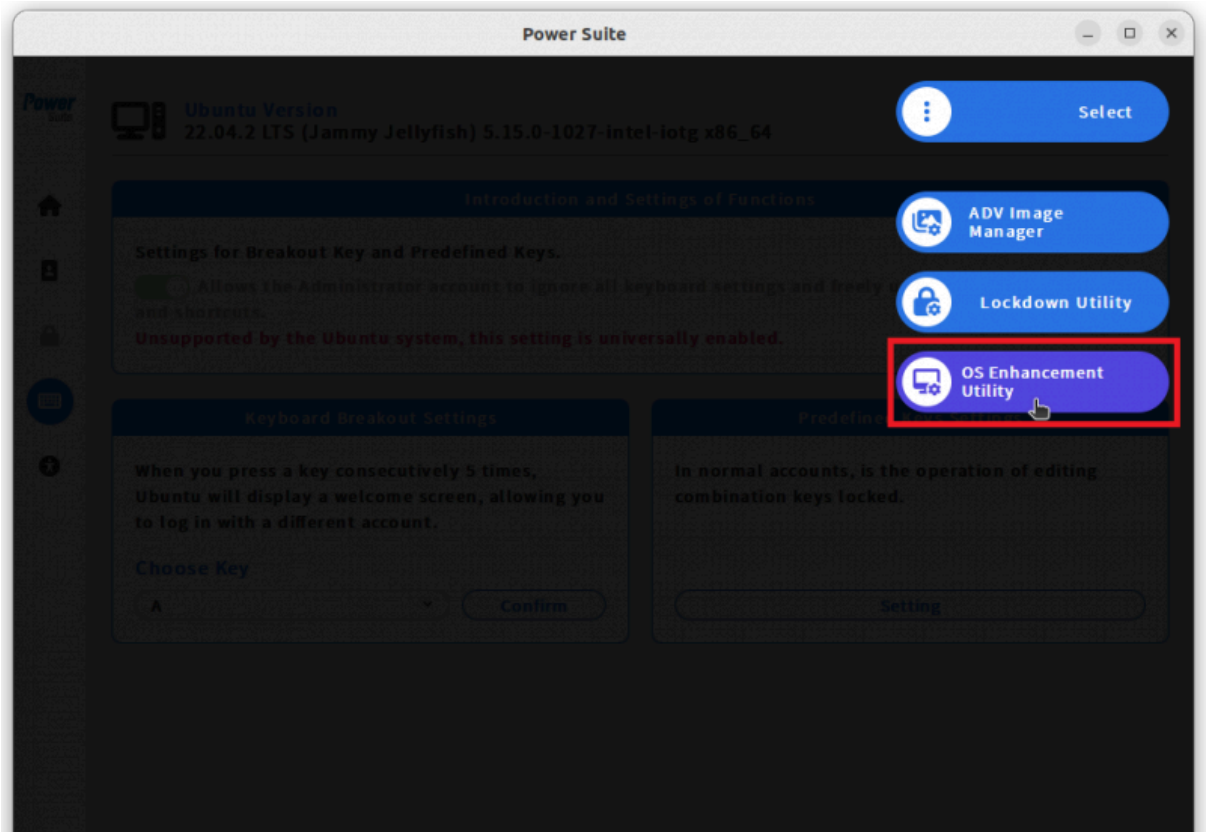
Notification

Brief

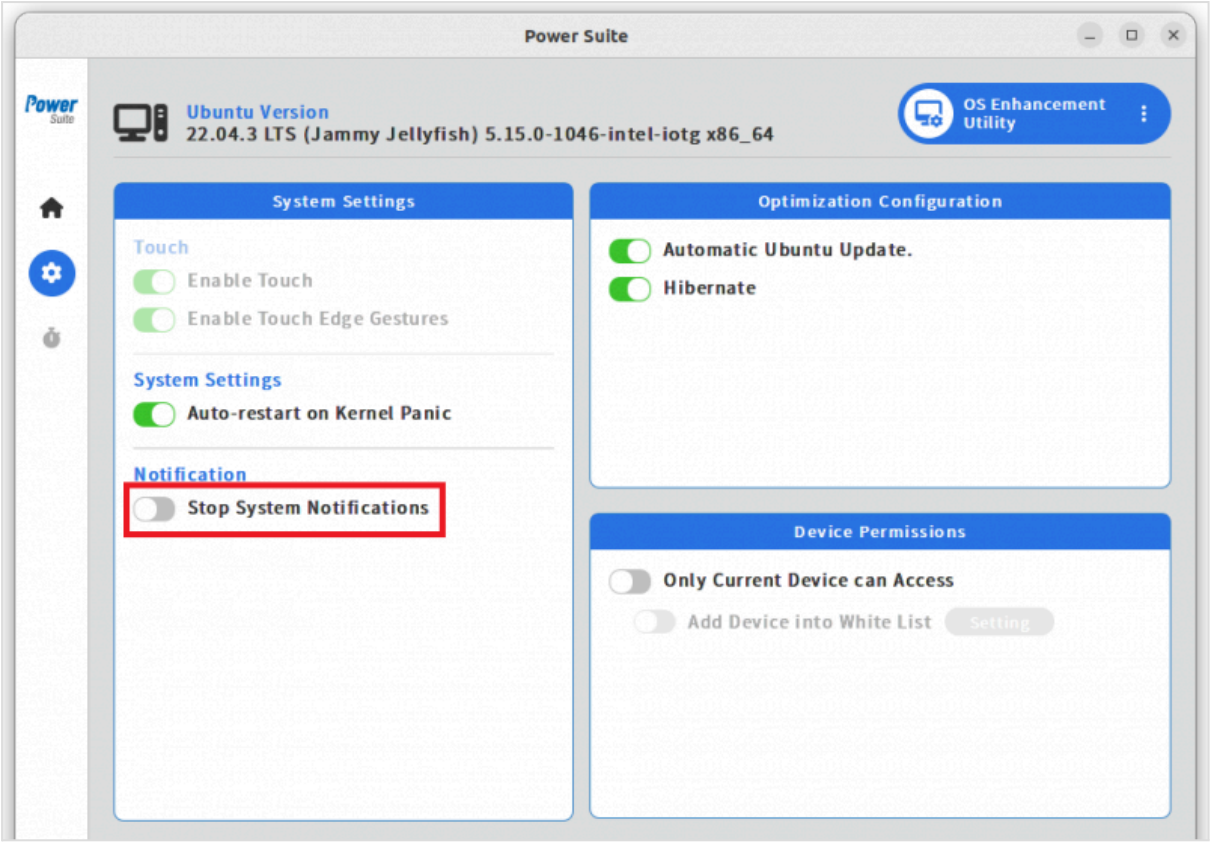
You can toggle the system notification feature of Ubuntu ON/OFF by clicking the "Stop System Notifications" button.

Steps

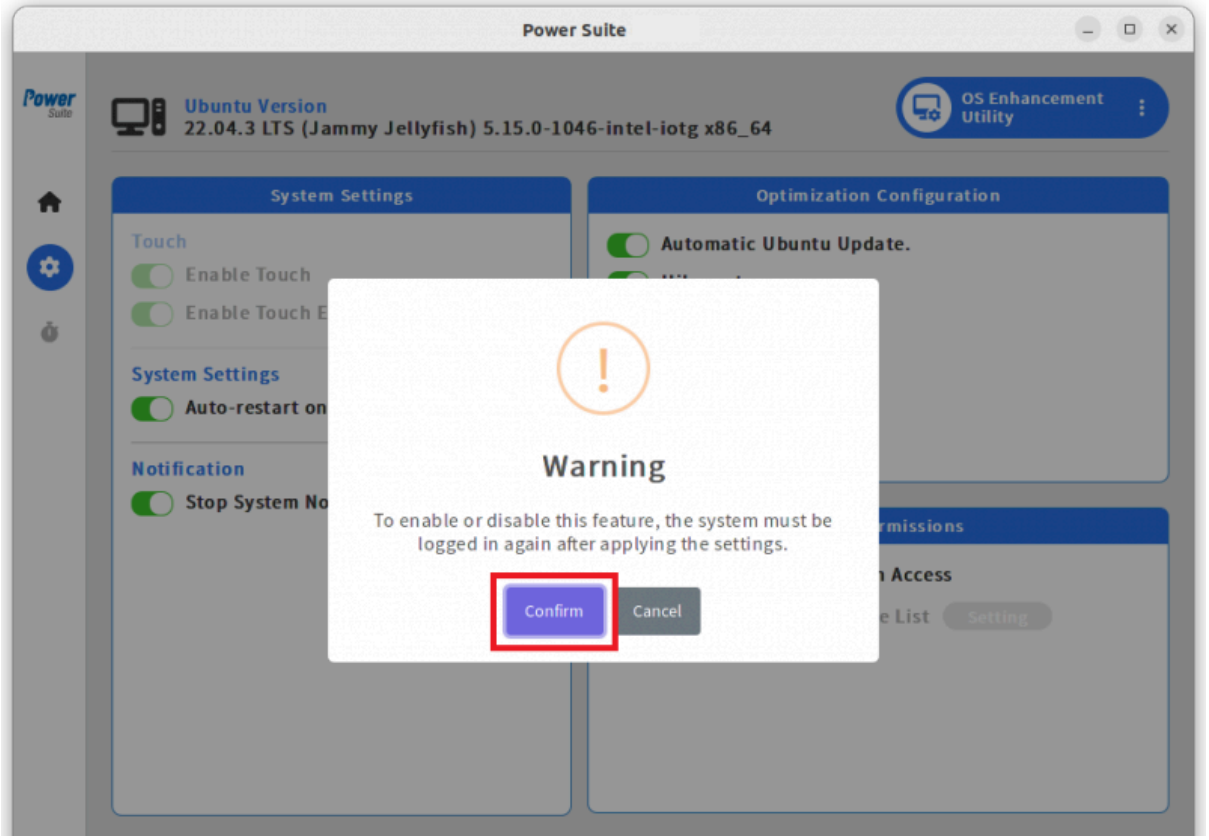
Step1. Select the “OS Enhancement Utility” page.



Step2. Click on "Stop System Notification" switch button.

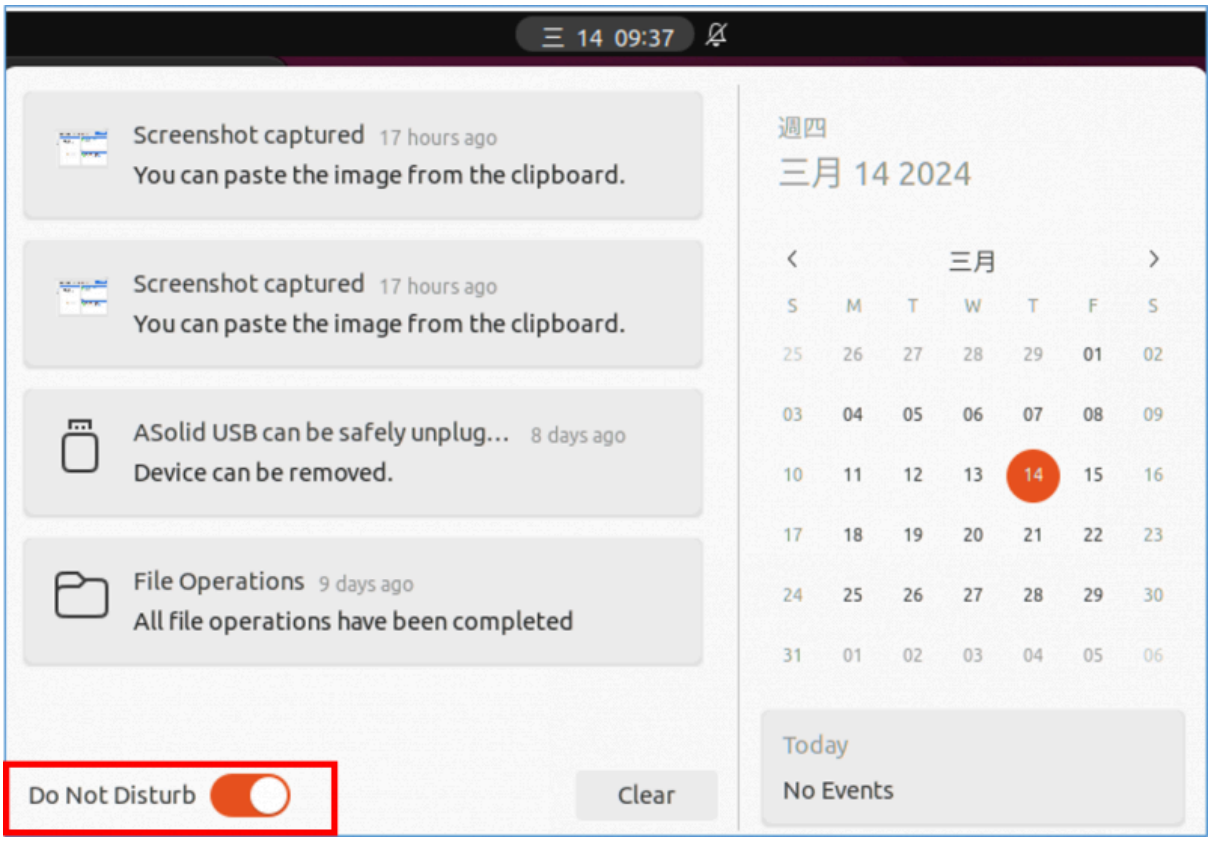


Step3. Click on "Confirm" to change the settings.



Result

Checking the message notification bar at the top of the Ubuntu desktop, you will find that "Do Not Disturb" has been turned on.



Ubuntu Update

Brief

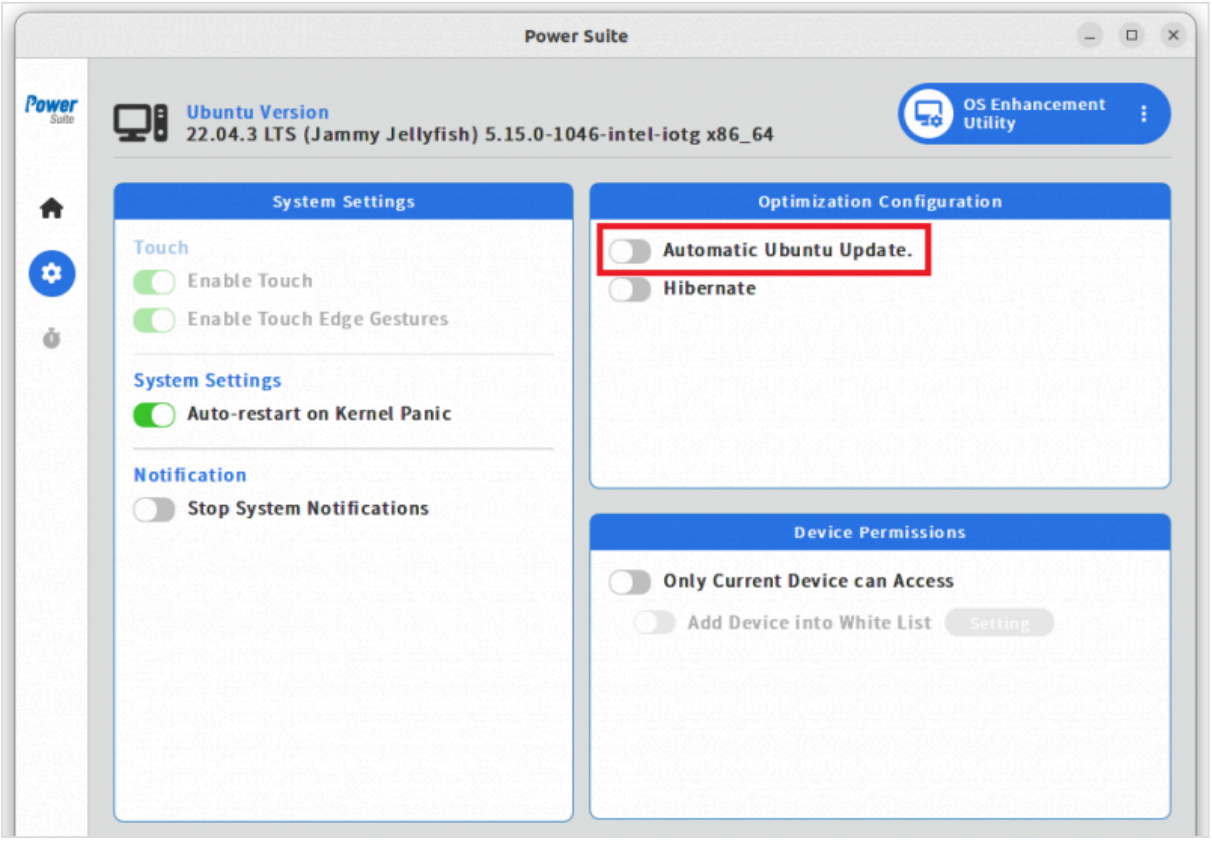
You can toggle the "Automatic Ubuntu Update" to disable automatic updates and update notifications in Ubuntu ; or enable automatic updates and update notifications.

Note

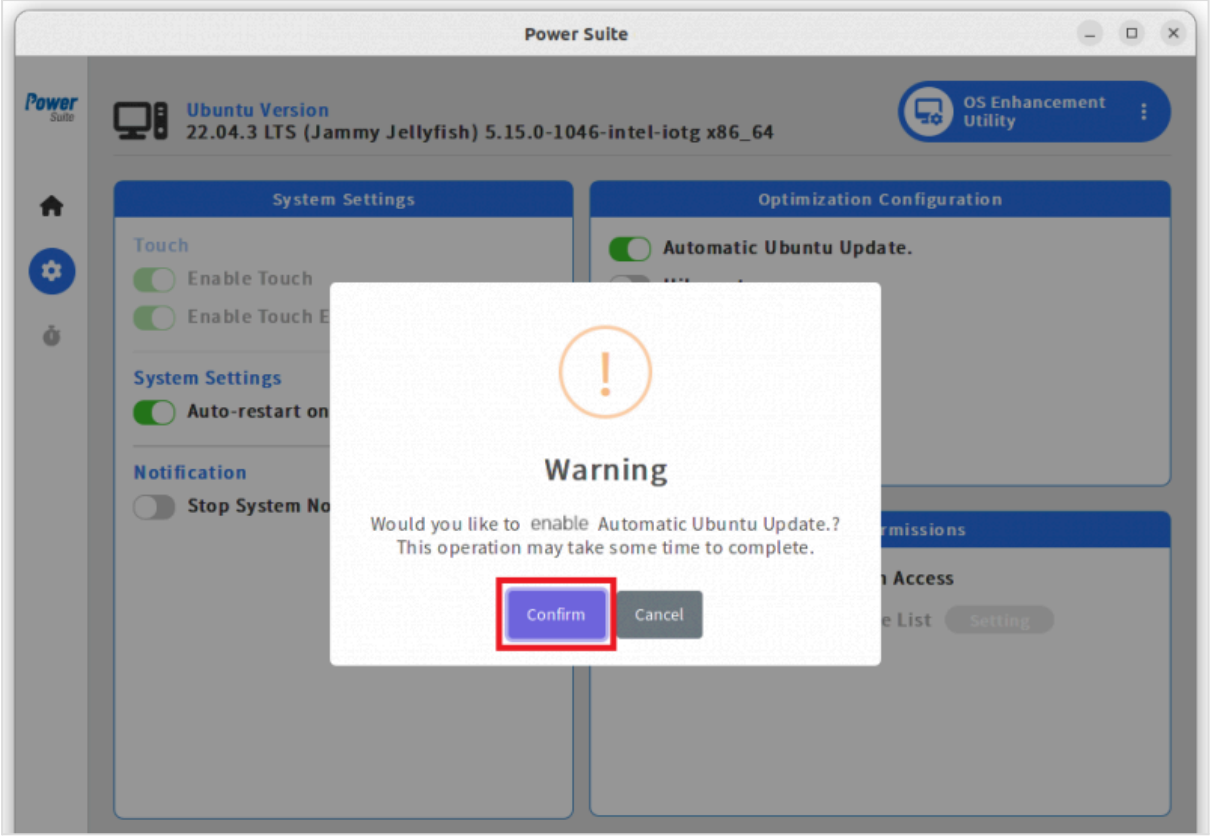
- Disable "Automatic Ubuntu Update" will also disable Ubuntu **Security Update** and **Others Update**(including disable updates for **Snap** packages).

Steps

Step1. Click on "Automatic Ubuntu Update" switch button.

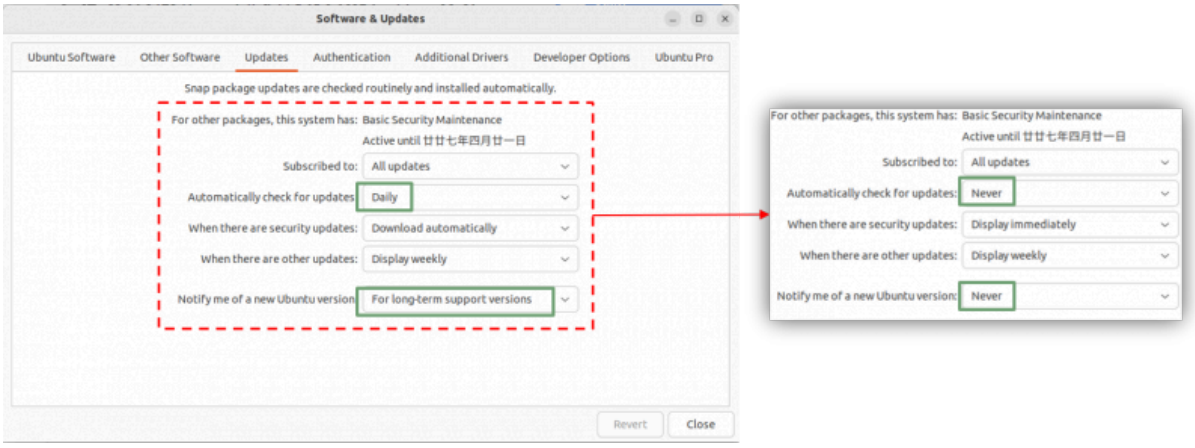


Step2. Click on "Confirm" to change the settings.

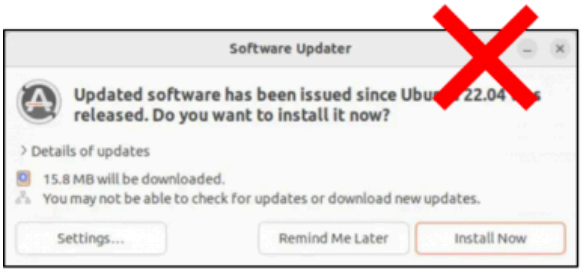


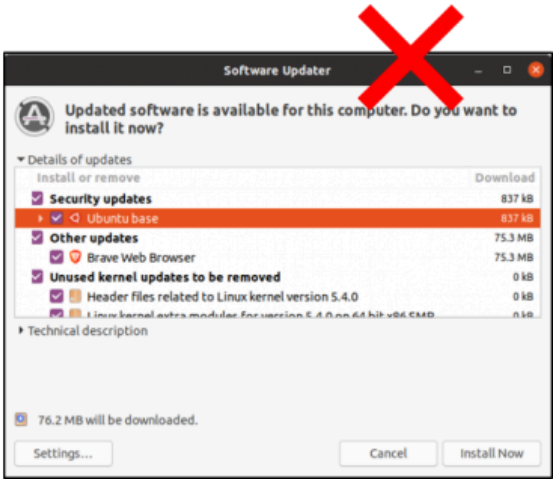
Result

1.You can go to the "Software & Updates" page in Ubuntu to see the changes in the options "Automatically check for updates" and "Notify me of a new Ubuntu version".



2.Update notification pop-ups will be closed.


Software Updater
Updated software has been issued since Ubu 22.04 s released. Do you want to install it now?
Details of updates
15.8 MB will be downloaded.
You may not be able to check for updates or download new updates.
Settings...
Remind Me Later
Install Now


Software Updater
Updated software is available for this computer. Do you want to install it now?
Details of updates
Install or remove
Download
Security updates
837 kB
Ubuntu base
837 kB
Other updates
75.3 MB
Brave Web Browser
75.3 MB
Unused kernel updates to be removed
0 kB
Header files related to Linux kernel version 5.4.0
0 kB
Technical description
76.2 MB will be downloaded.
Settings...
Cancel
Install Now

Hibernate

Brief

Enabling hibernate button will provide your device with the hibernate functionality.

Note

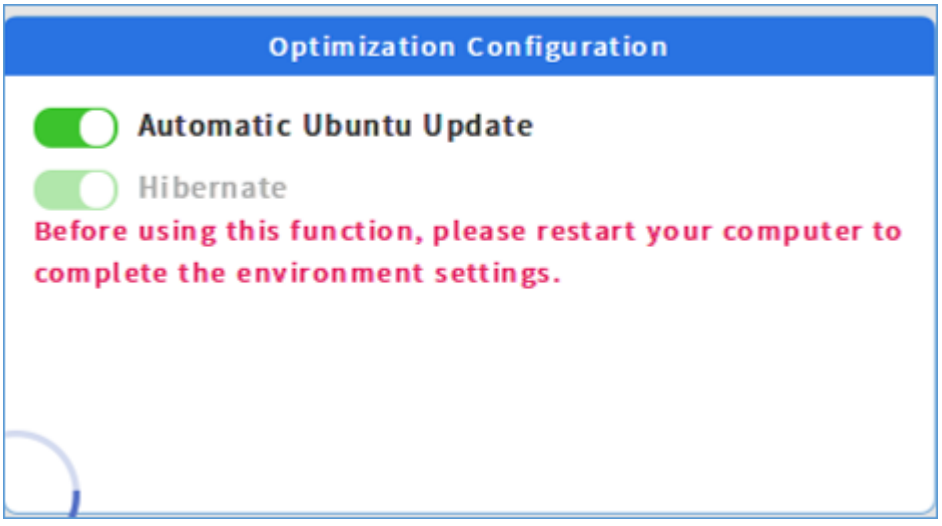
1.Disk space limitation:

- Since Ubuntu 20.04 and Ubuntu 22.04 do not support system hibernation, enabling the hibernate feature will first allocate swap space on your hard drive larger than the size of your memory. Therefore, you need to have sufficient disk space available.
- If not considering the need to simultaneously enable the "backup & recovery" and "Disk Protection" functions, the remaining available **disk space should be at least 5GB larger than the memory size.**

2.Execution time:

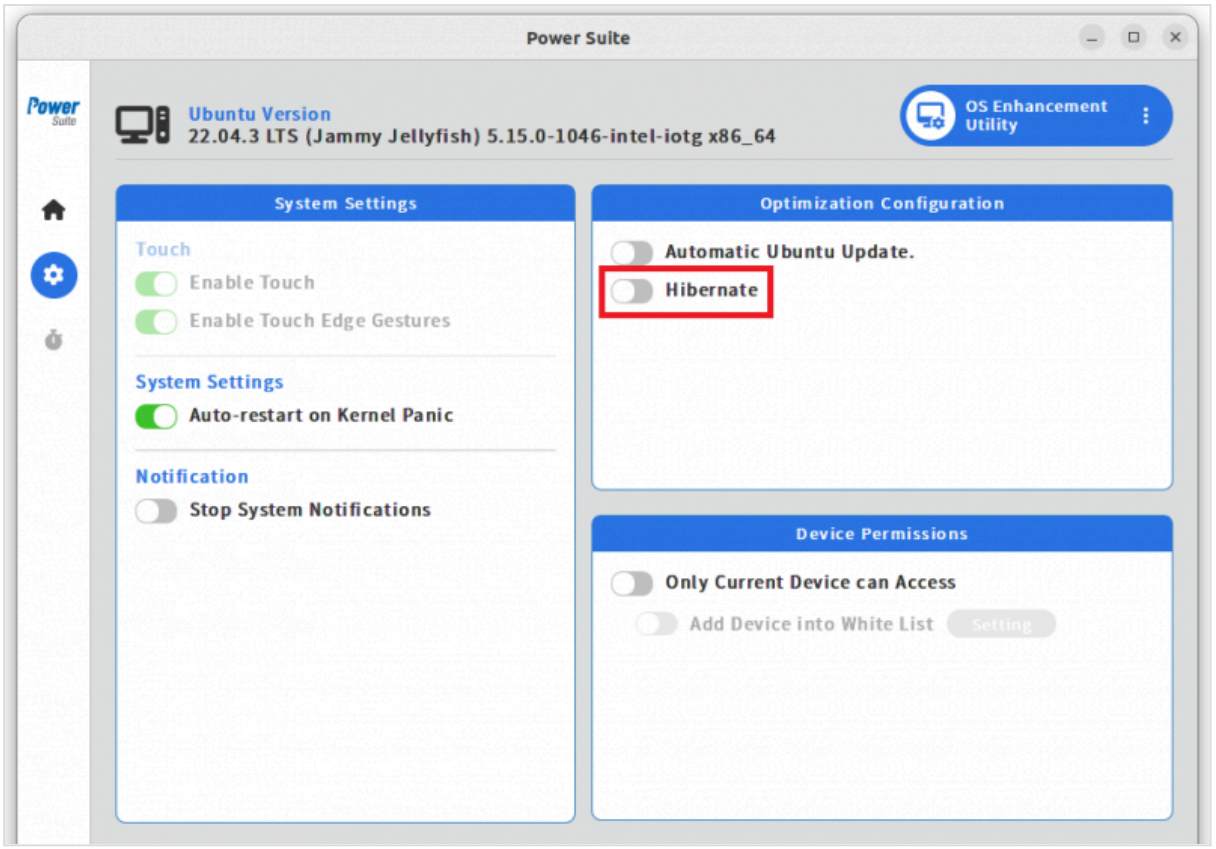
- Configuring this swap space will take approximately 5 to 6 minutes and may vary depending on the size of your device's memory. If swap configuration has been previously performed, it will not be repeated.

If entering the Power Suite OS Enhancement for the first time, the device needs to be restarted before enabling hibernate.

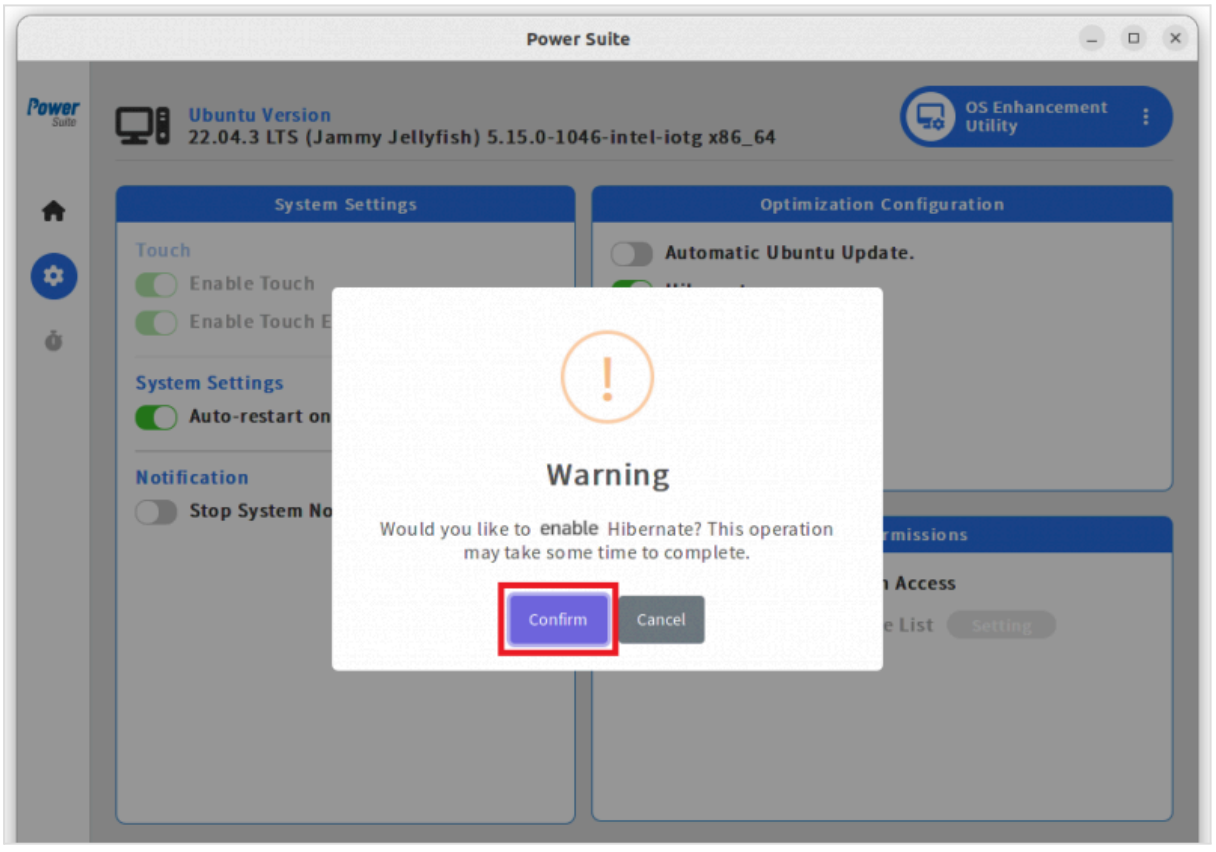


Steps

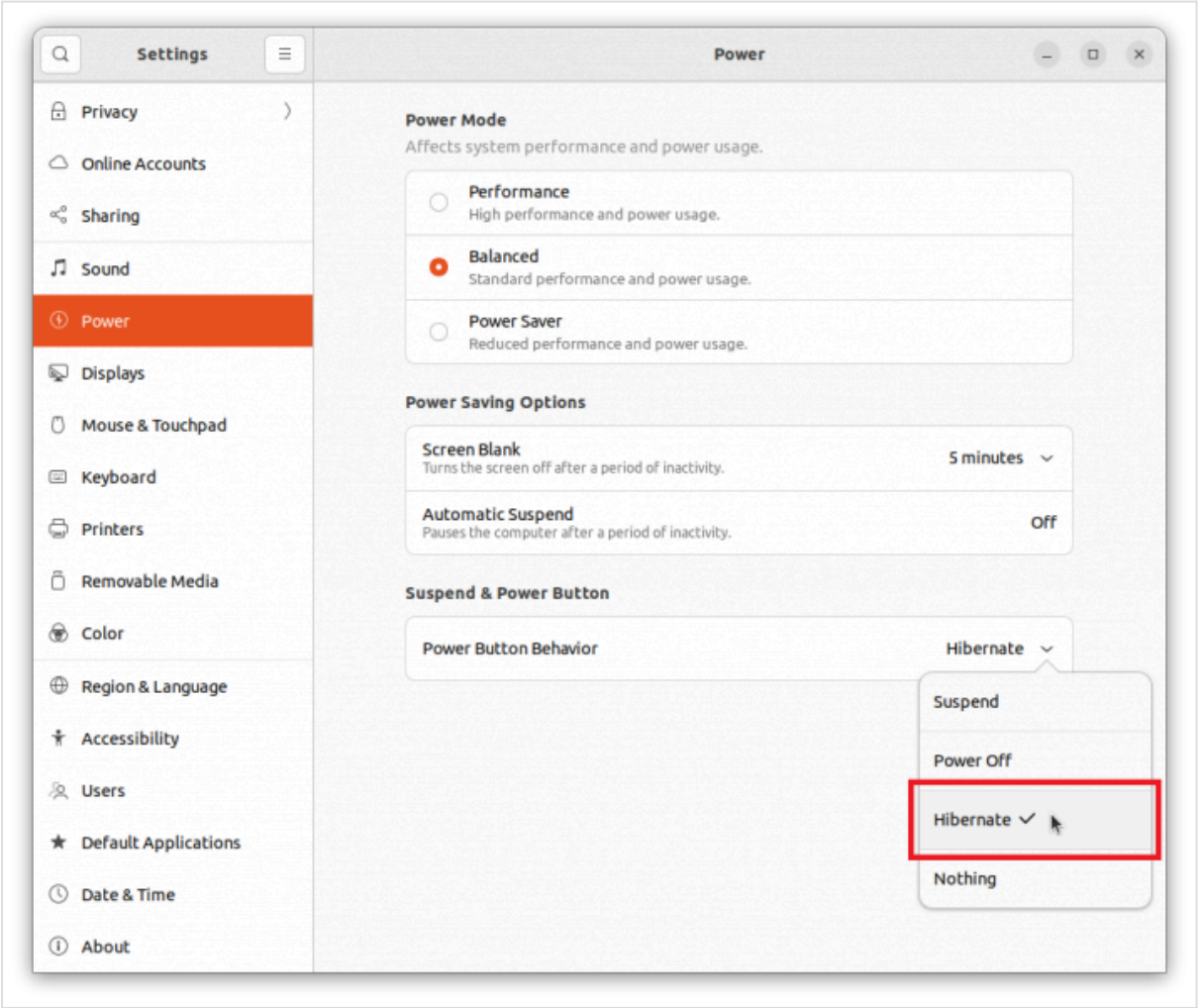
Step1. Click on "Hibernate" to disable or enable Hibernate feature.

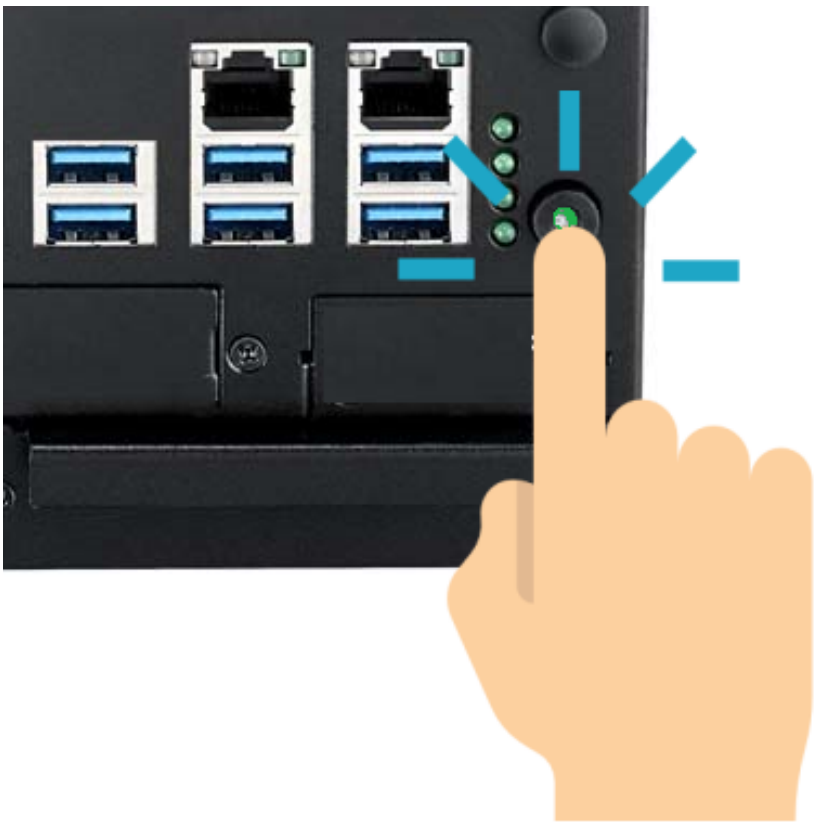


Step2. Click on "Confirm" to disable or enable Hibernate.

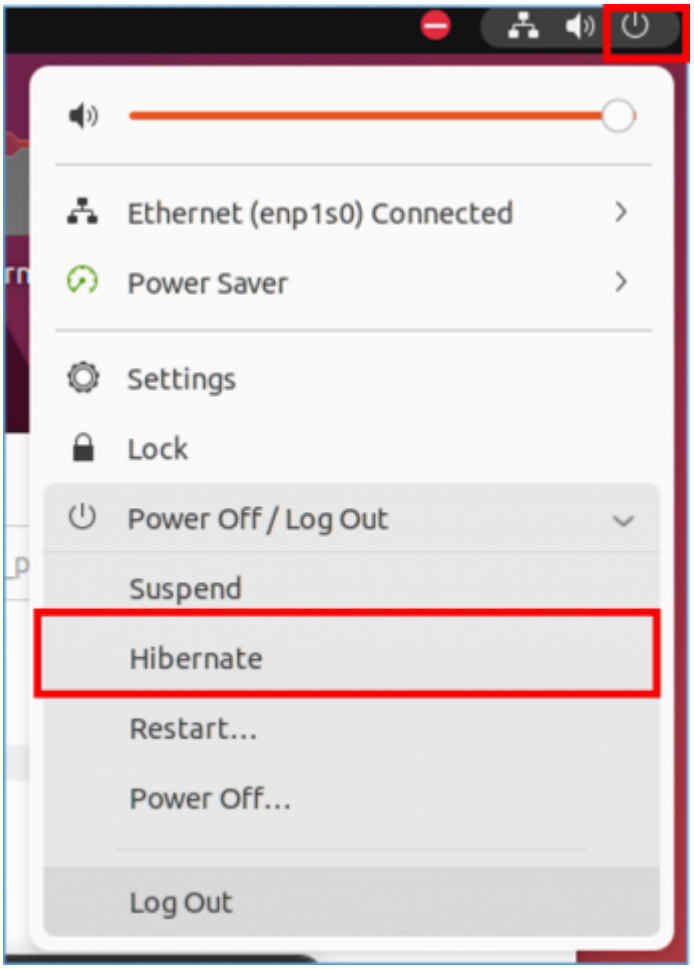


Step3-1. In the Ubuntu's Settings, set the "Power Button Behavior" to "Hibernate". Then you can press the Advantech IPC's Power Button to enter Hibernate mode.





Step3-2. Alternatively, click on the power off option at the top right corner of the Ubuntu screen, and select "Hibernate" to enter hibernate mode.


Ethernet (enp1s0) Connected
Power Saver
Settings
Lock
Power Off / Log Out
Suspend
Hibernate
Restart...
Power Off...
Log Out

Device Control

Brief

Device permissions are divided into two functions:

1. Only current device can access:

- This means only USB devices currently plugged into the machine can be used. If you try to plug in a new USB device (not the current USB device), it will be disabled.
- The current device is only allowed to be used in the USB port where the "only current device can access" function is enabled.**Inserting it into another USB port will disable the device.**

2. Add Device into whitelist:

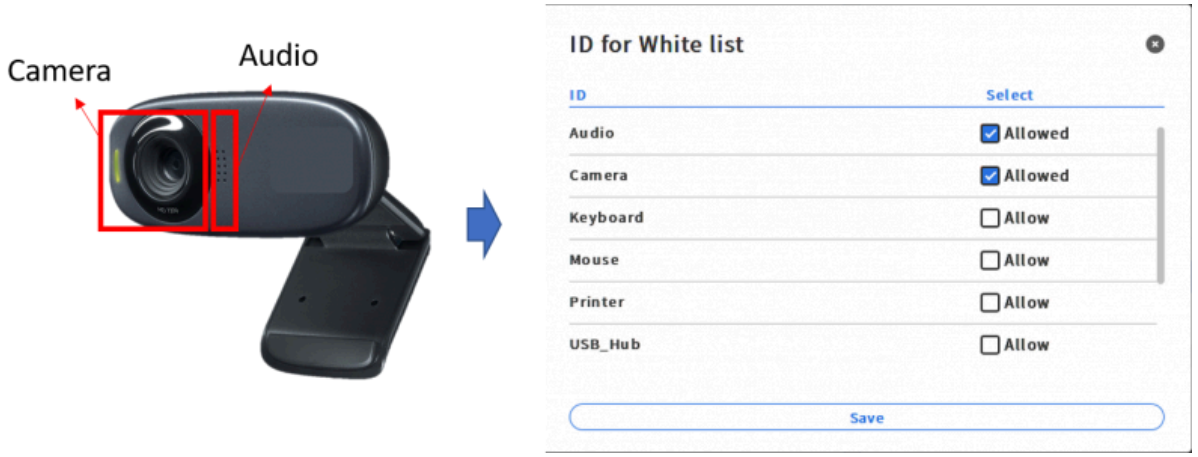
- After enabling "Only current device can access," you can click on the "Add Device into whitelist" function. Check the USB device types you want to use and add them to the whitelist, allowing the use of those USB device types.

White List:

Whitelist categories include: Audio, Camera, Keyboard, Mouse, Printer, USB_Hub, USB_storge, and wireless_Keyboard_Mouse.

Note

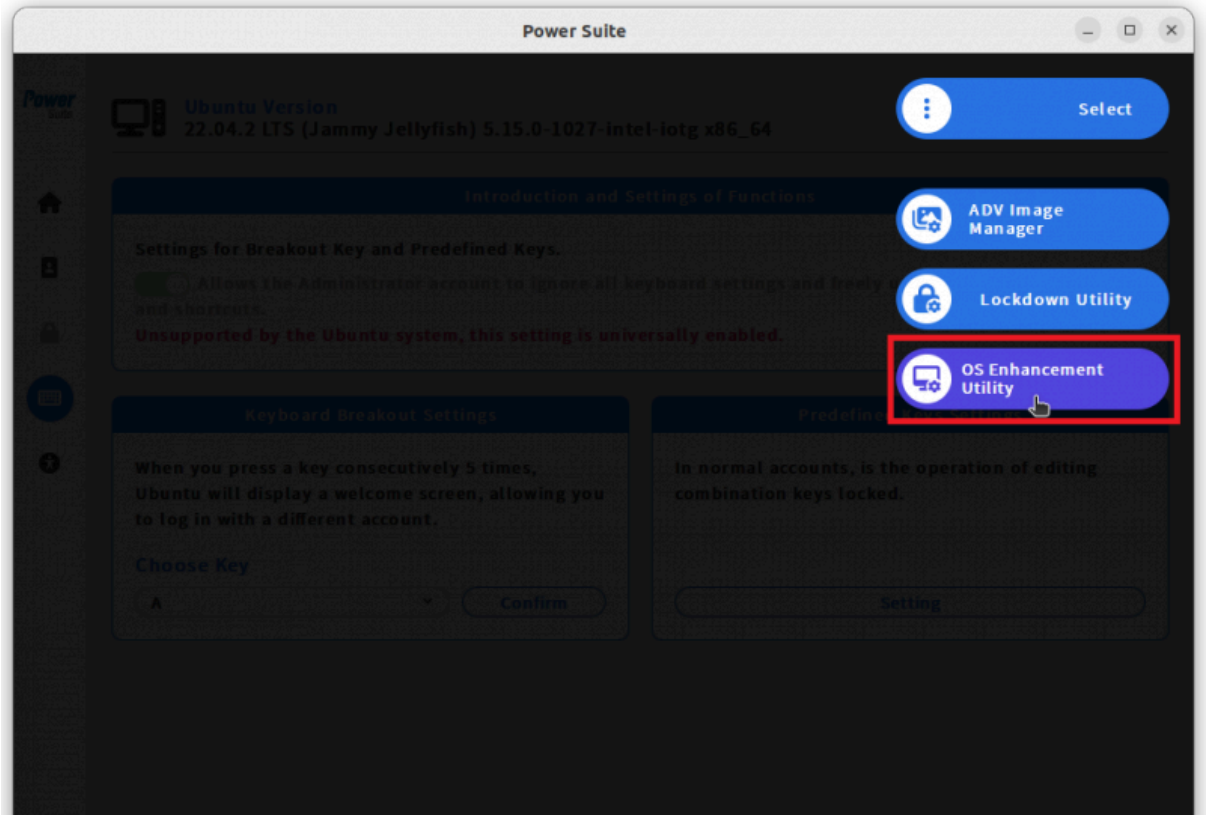
1. If you want to allow wireless mouse&keyboard combinations, please open the "wireless_Keyboard_Mouse" option in the whitelist.
2. For Multi-Types USB devices, please open all whitelist options that include that type.
    - **EX :** If audio devices include cameras, or cameras include speakers or microphones, please open both the "Audio" and "Camera" options.



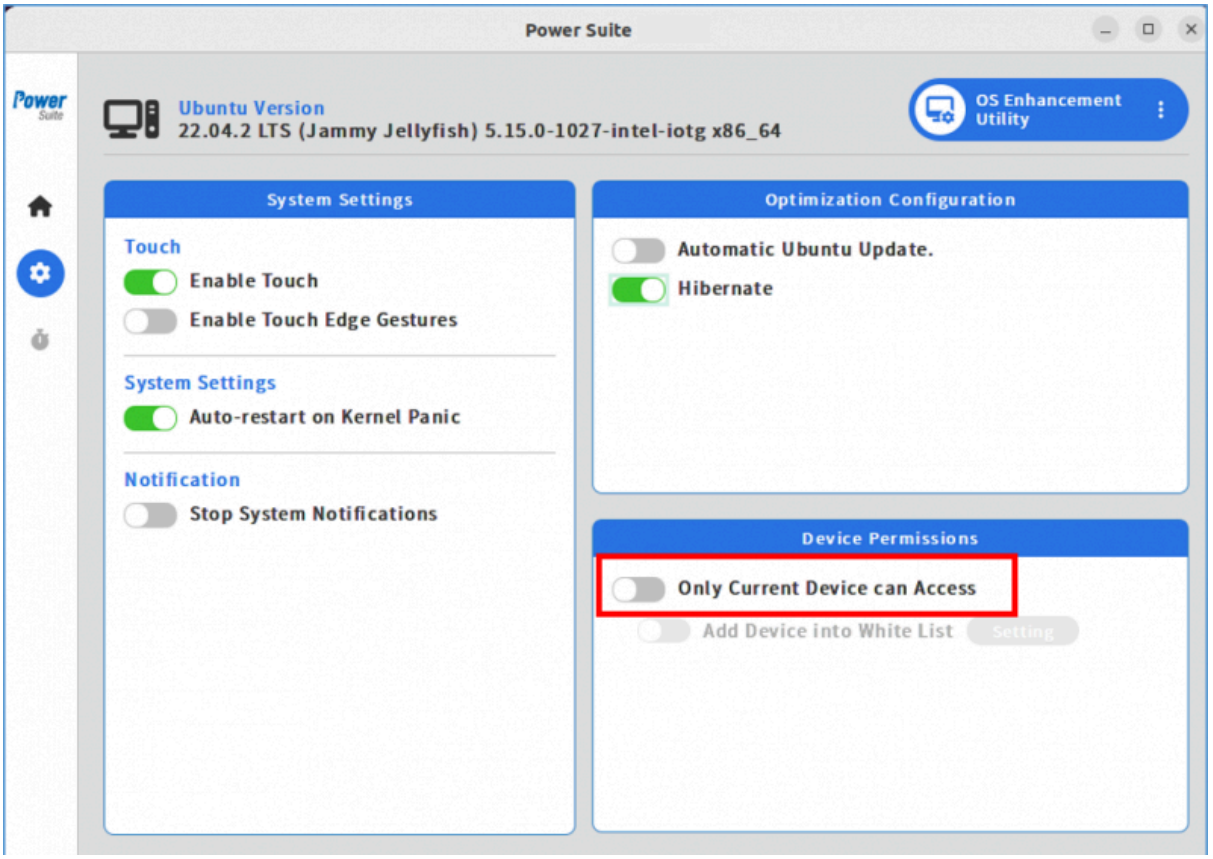
3. If devices on the USB Hub need to be used, please open both the USB_Hub and the device type options.

Steps

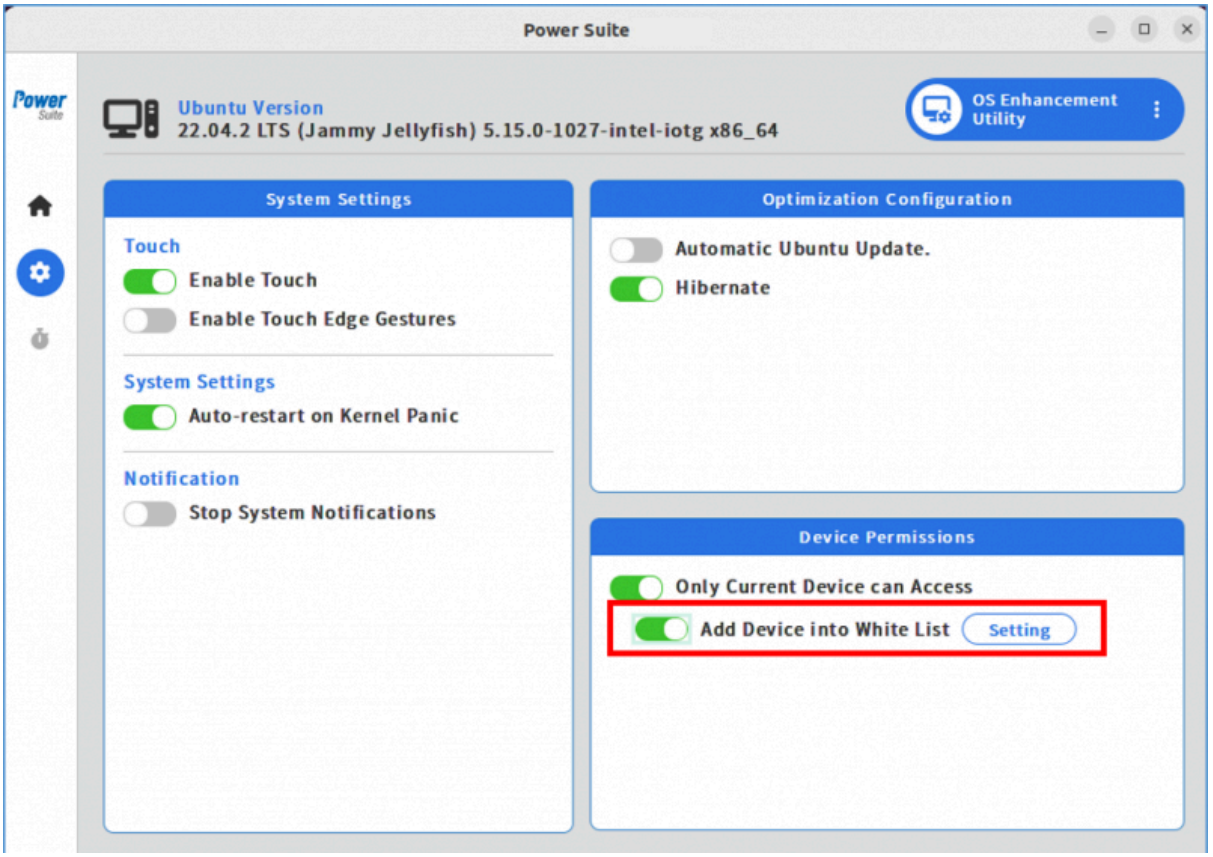
Step1. Select the “OS Enhancement Utility” page.



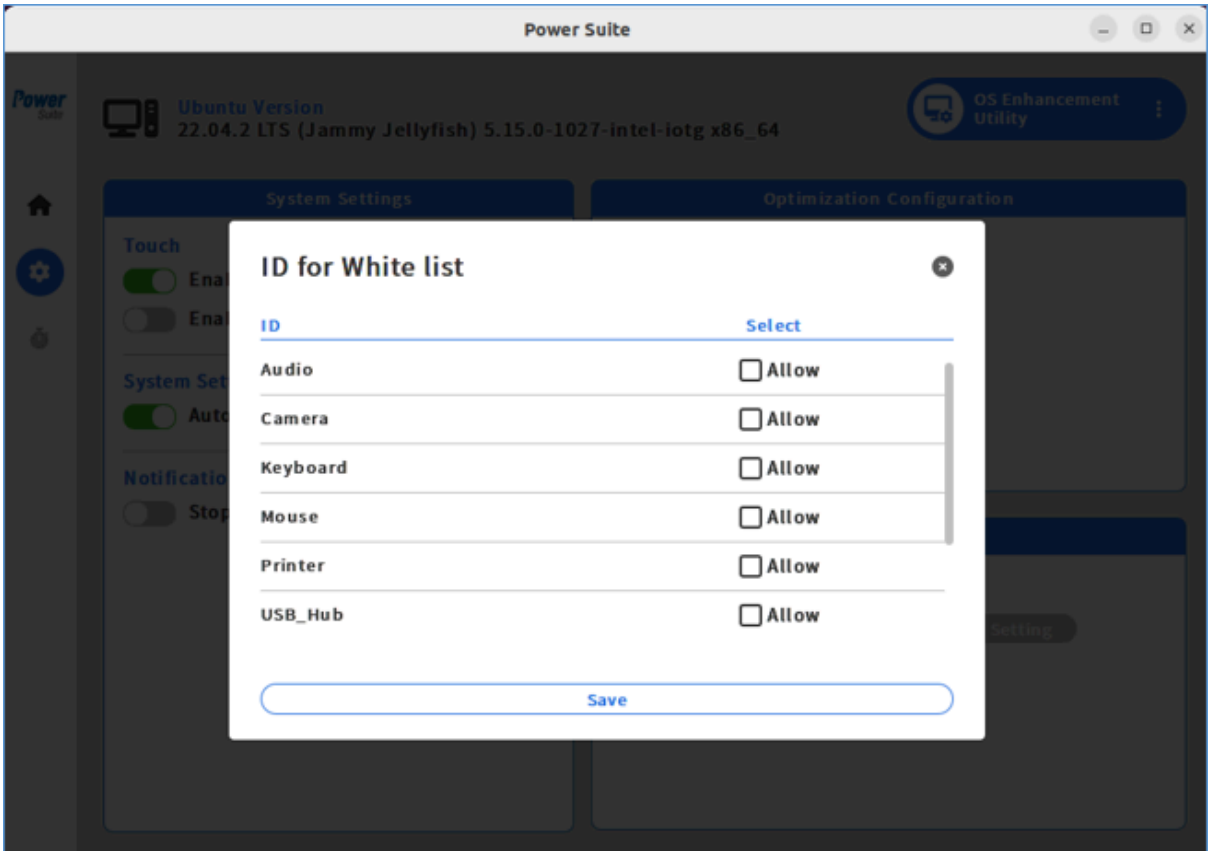
Step2. Click on "Only Current Device can Access" switch button.



Step3. Click on "Add Device into whitelist" switch button and click the "setting" button.

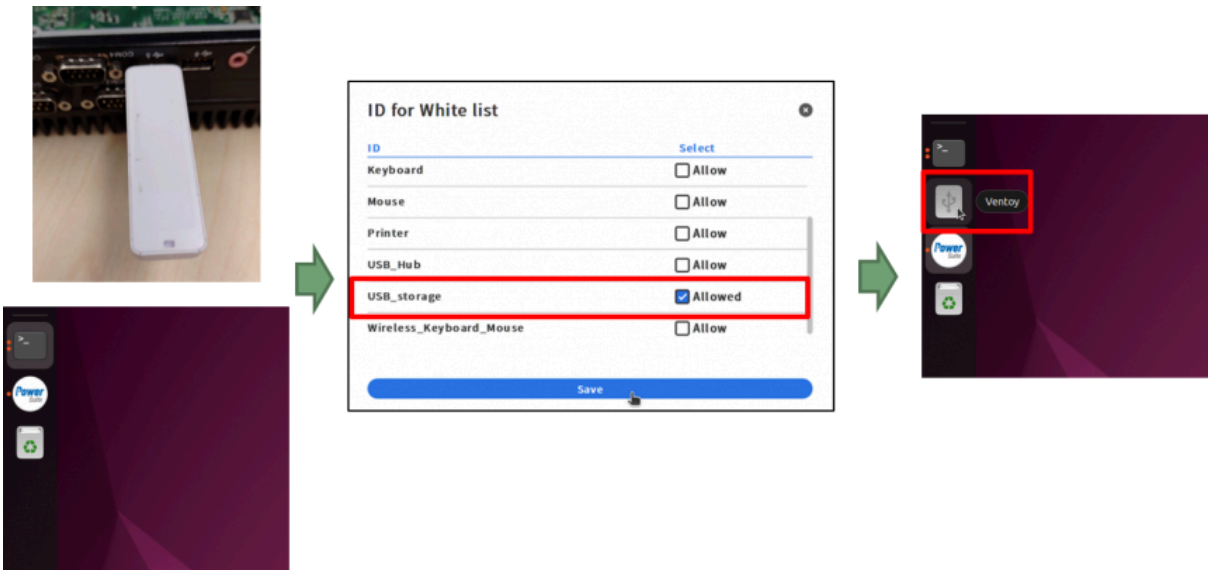


Step4. Select the device types you want to add to the whitelist, and click "Save" button.



Result

Assuming the "only current device can access" feature is enabled and there are no USB drives connected to the machine, you will not see any response when inserting a USB drive. Next, adding the "USB_Storage" option to the whitelist and pressing save, you will then see the system recognizing the USB drive.



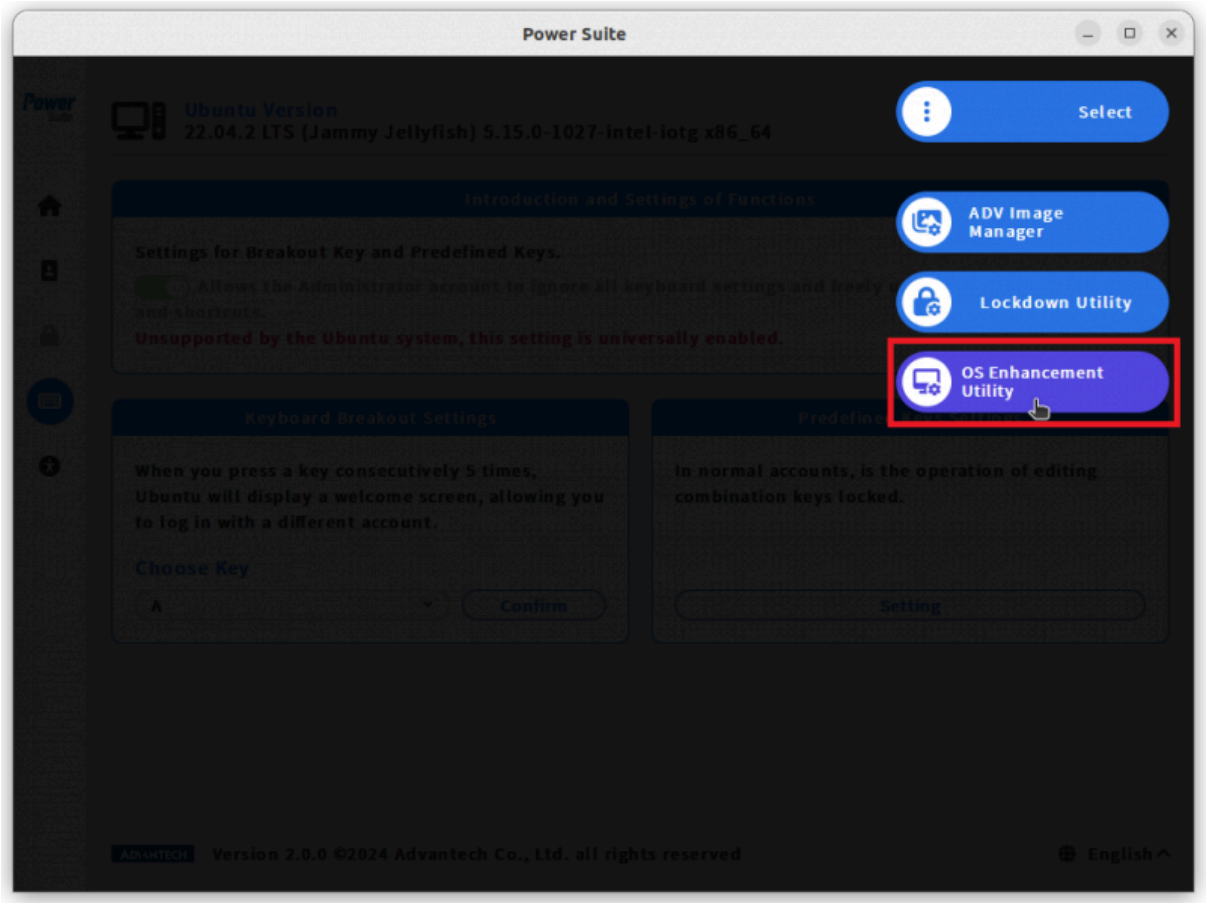
Kernel Panic Reboot

Brief

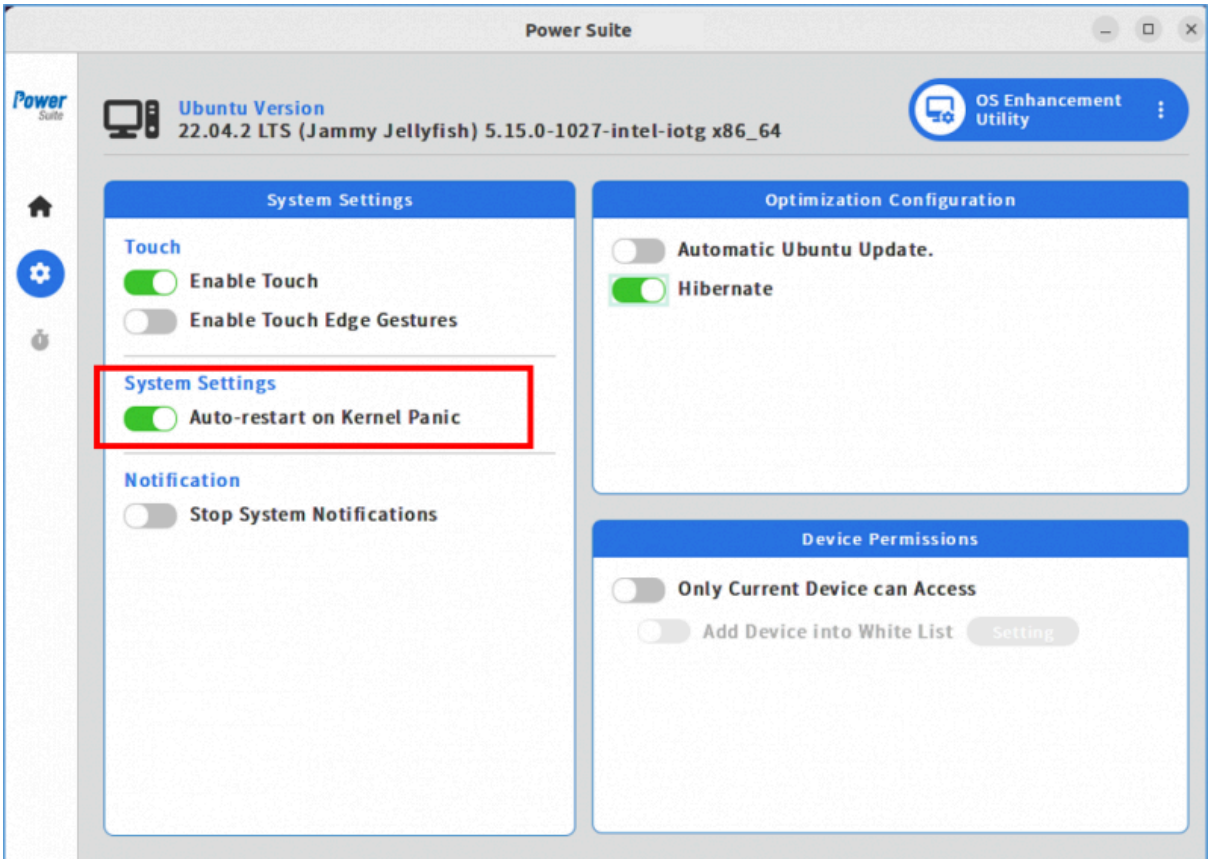
When enabled the Auto-restart on Kernel Panic feature, Ubuntu system will automatically reboot when encountering a kernel panic to prevent the screen from freezing.

Steps

Step1. Select the “OS Enhancement Utility” page.



Step2. Click on "Auto-restart on Kernel Panic" to enable this feature.



Step3. Then please restart the system to apply the settings.

Result

The next time your Ubuntu system encounters a kernel panic, it will automatically reboot for you.

Touch Control

Brief

Touch control has two functions:

1. Enable touch:

- Turn on "Enable touch" to allow the touch function of the touch screen; or turn off "Enable touch" to disable the touch function of the touch screen.

2. Enable Gestures Touch:

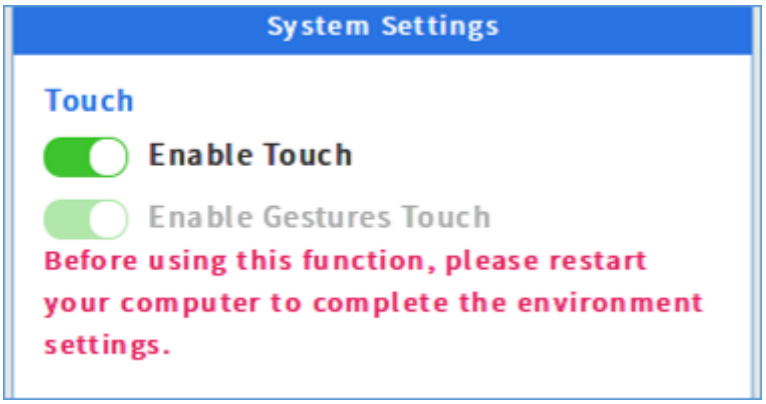
- After turning on "Enable touch," you can also turn on "Enable Gestures Touch" to allow the use of touch gestures (including **edge triggering** and **multi-touch three or more gesture** functions); or turn off "Enable Gestures Touch" to disable touch gesture functionality.

Open the Activities Overview and Applications View	
Switch Workspace	
Bring up the on-screen keyboard (***If the on-screen keyboard is enabled***)	

Note

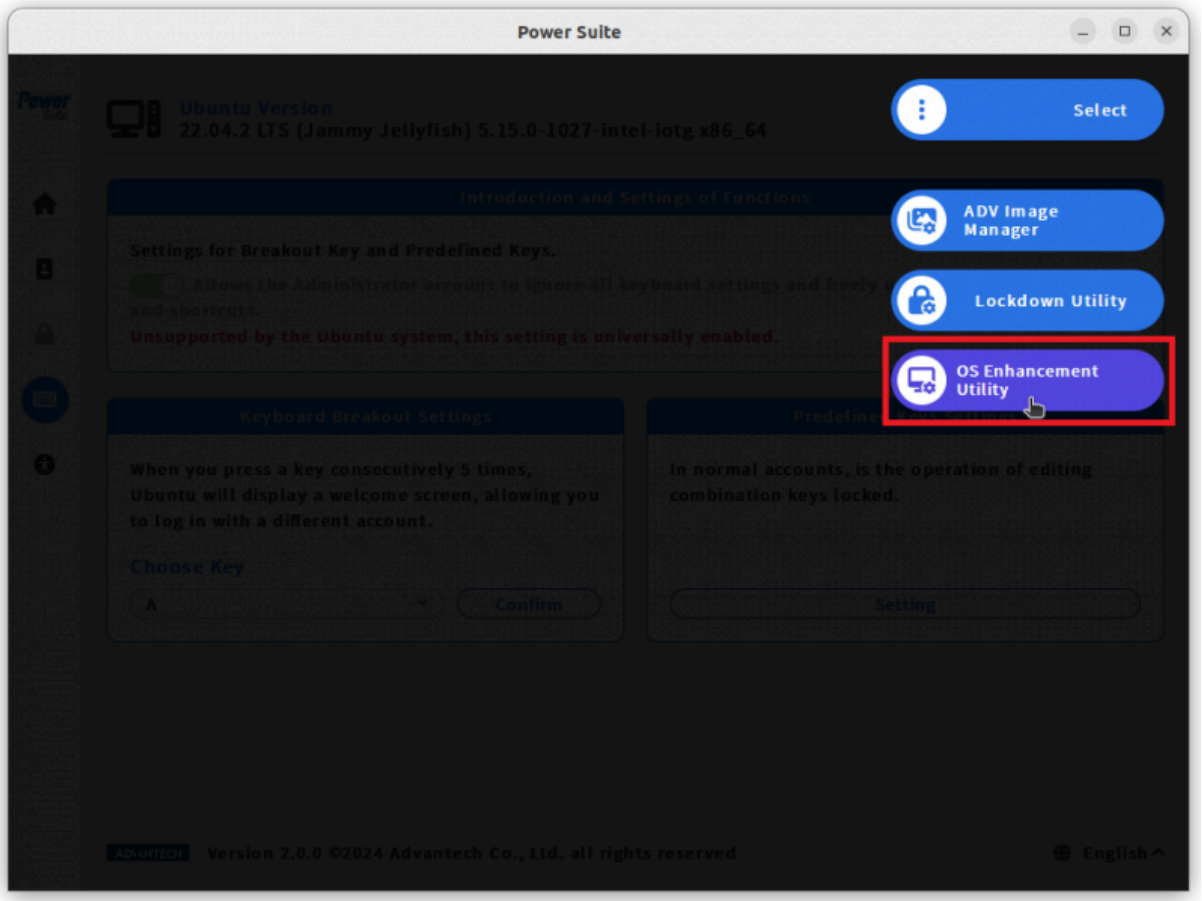
- The default status is "touch enabled" and "gestures enabled," even if you have not connected any touch screen devices.
- When using this feature for the first time (without having used any touch screen devices before), the "Enable touch" function cannot be turned off.
- When "Enable Touch" function is turned off, the "Enable Gestures Touch" functionality will be disabled synchronously.

- If entering the Power Suite OS Enhancement for the first time, the device needs to be restarted before enabling "Enable Gestures Touch" function.

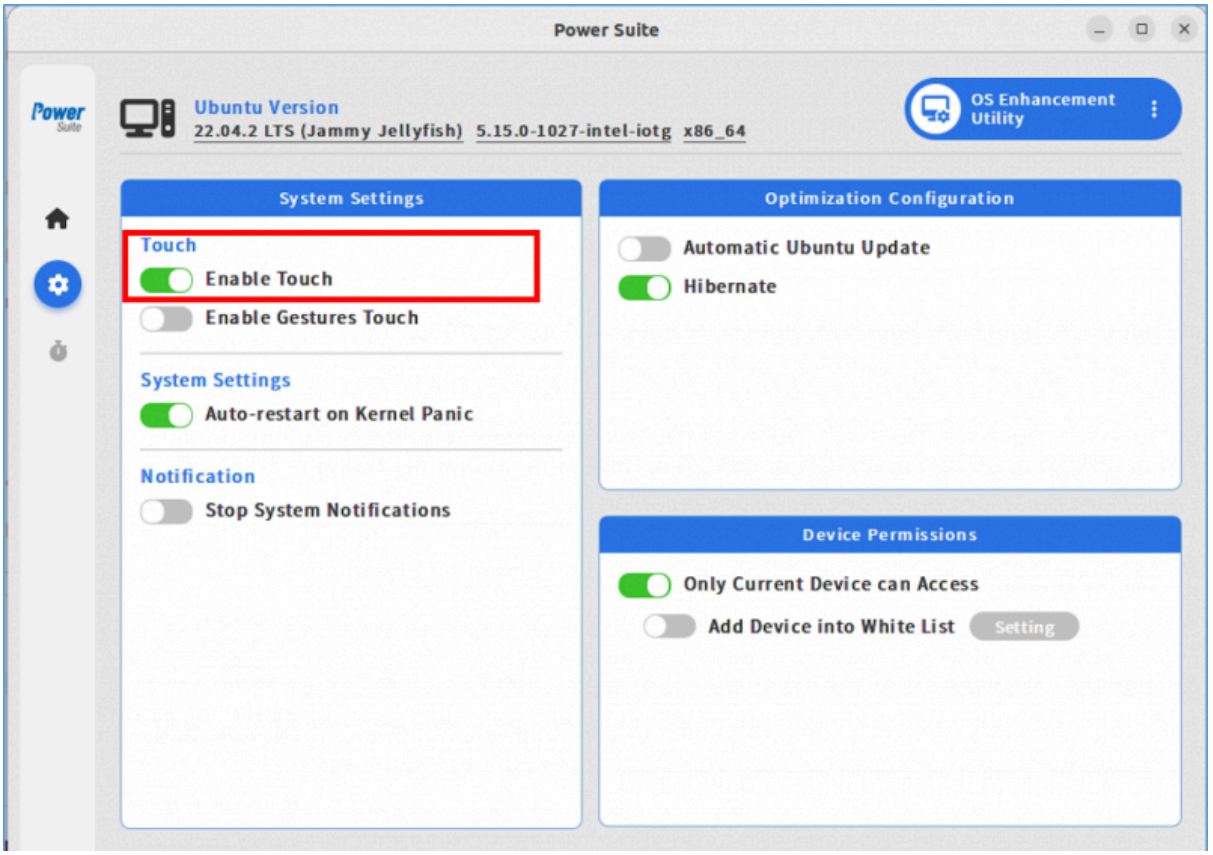


Steps

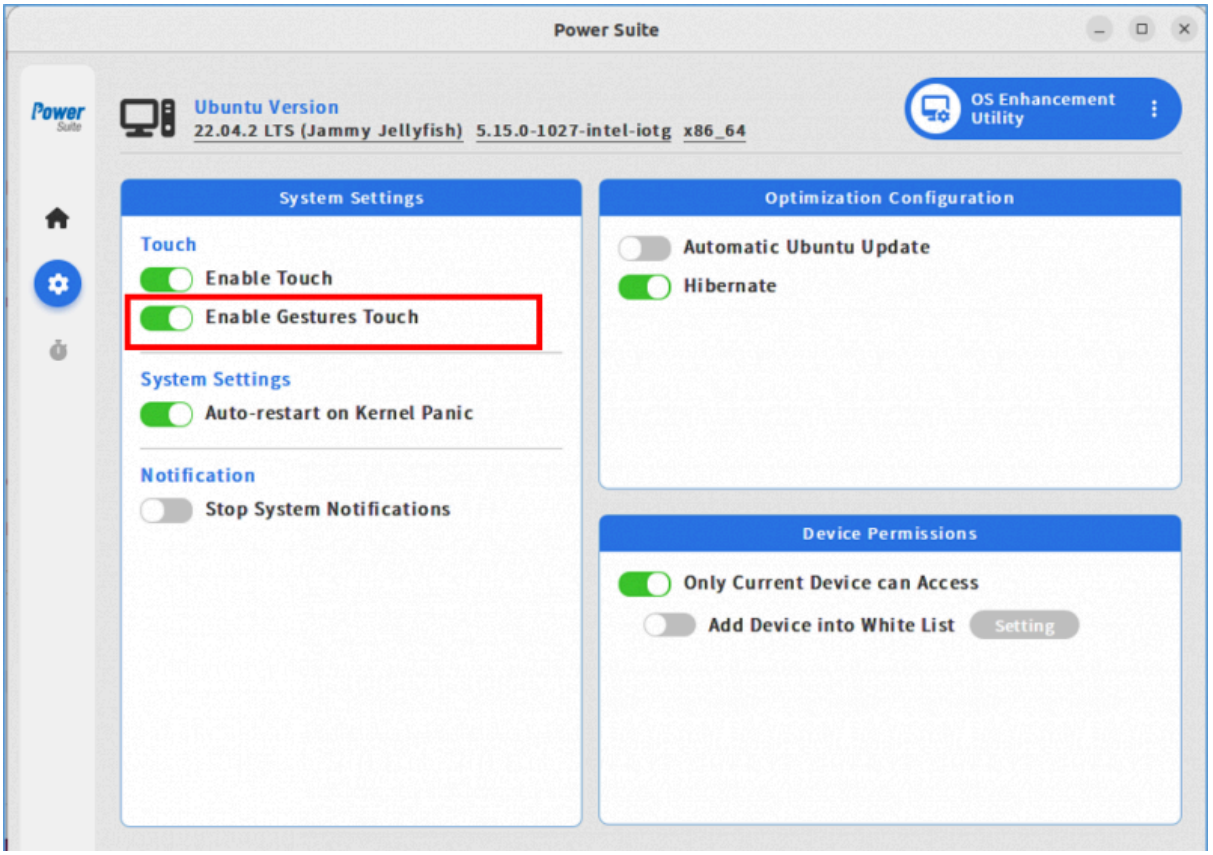
Step1. Select the “OS Enhancement Utility” page.



Step2. Click on "Enable Touch" to disable or enable Touch feature.



Step3. Click on "Enable Gestures Touch" to disable or enable Gestures Touch feature.


Power Suite
Power
Ubuntu Version
22.04.2 LTS (Jammy Jellyfish) 5.15.0-1027-intel-iotg x86_64
OS Enhancement Utility
System Settings
Touch
Enable Touch
Enable Gestures Touch
System Settings
Auto-restart on Kernel Panic
Notification
Stop System Notifications
Optimization Configuration
Automatic Ubuntu Update
Hibernate
Device Permissions
Only Current Device can Access
Add Device into White List
Setting

Lockdown Utility

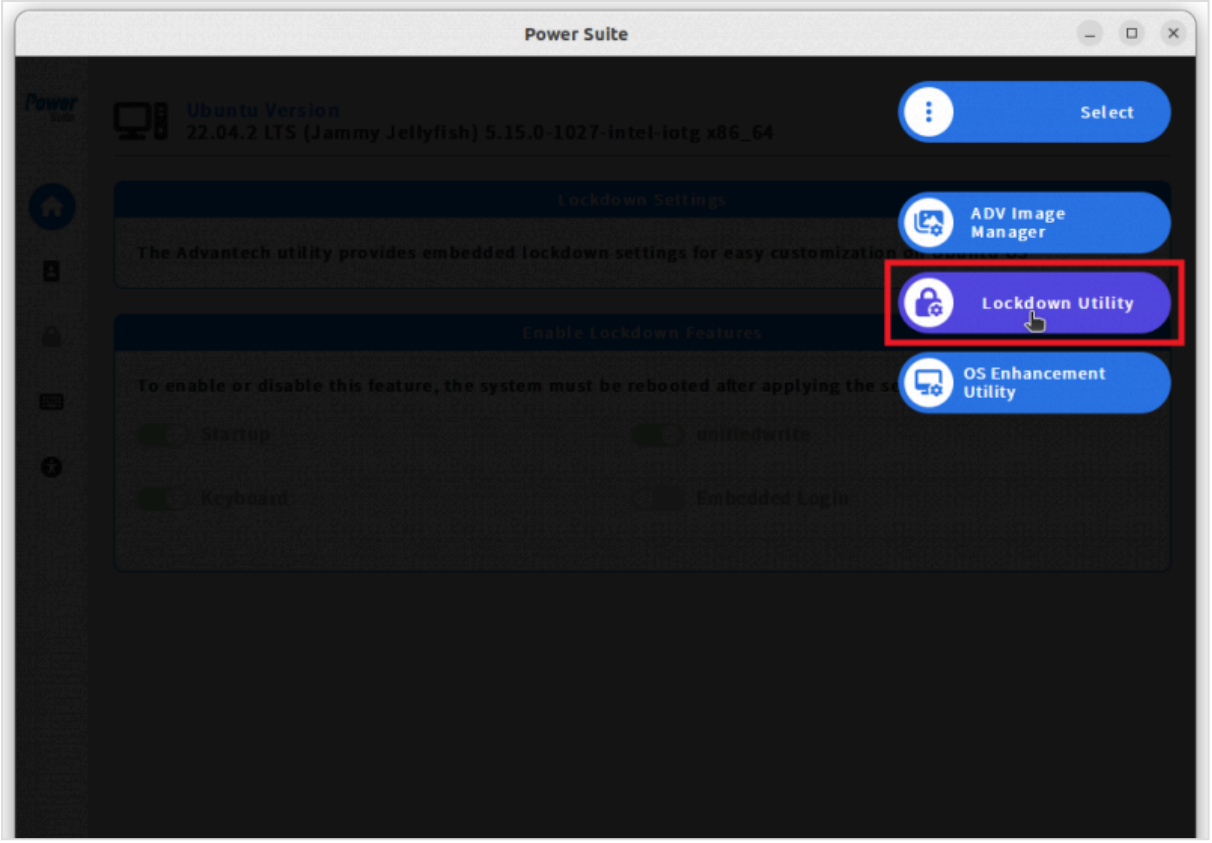
Automatic Logon

Brief

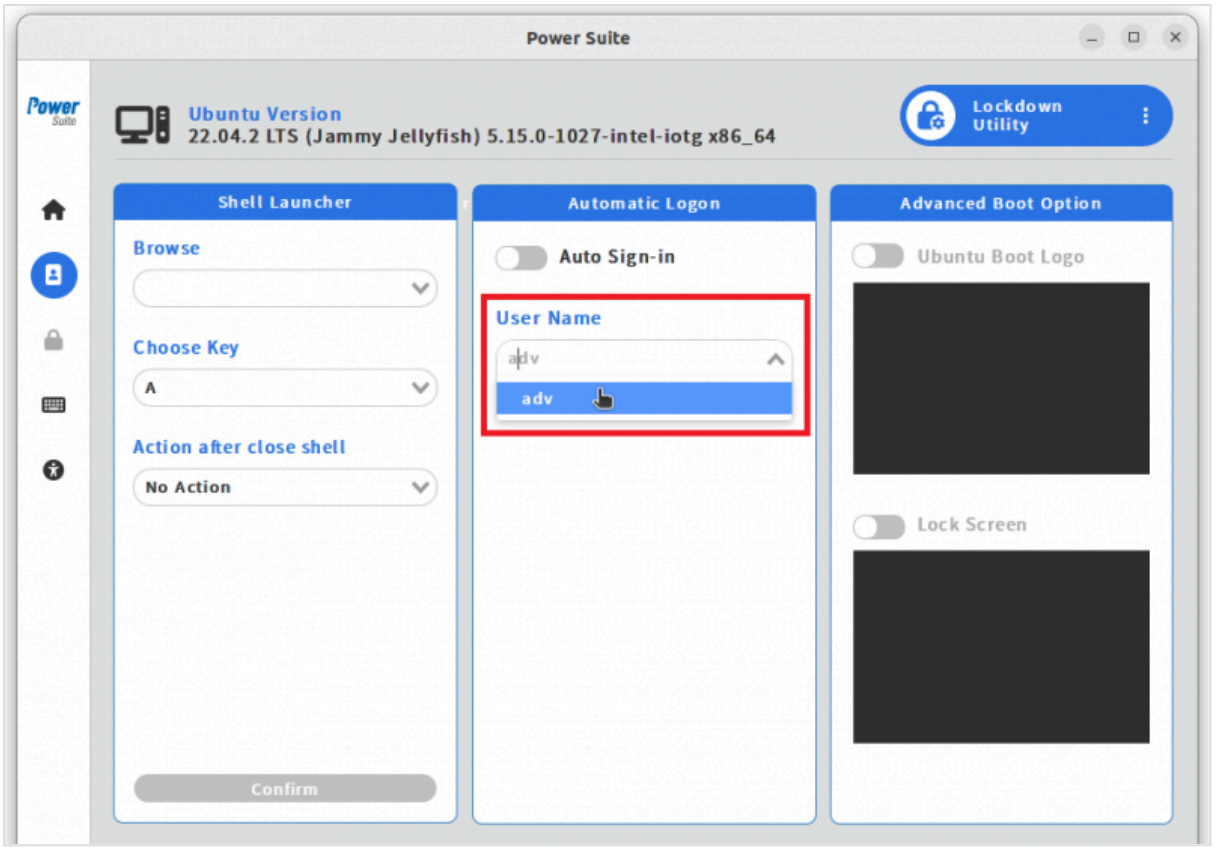
Enabling this function to automatically logon with specific user when system boot up.

Steps

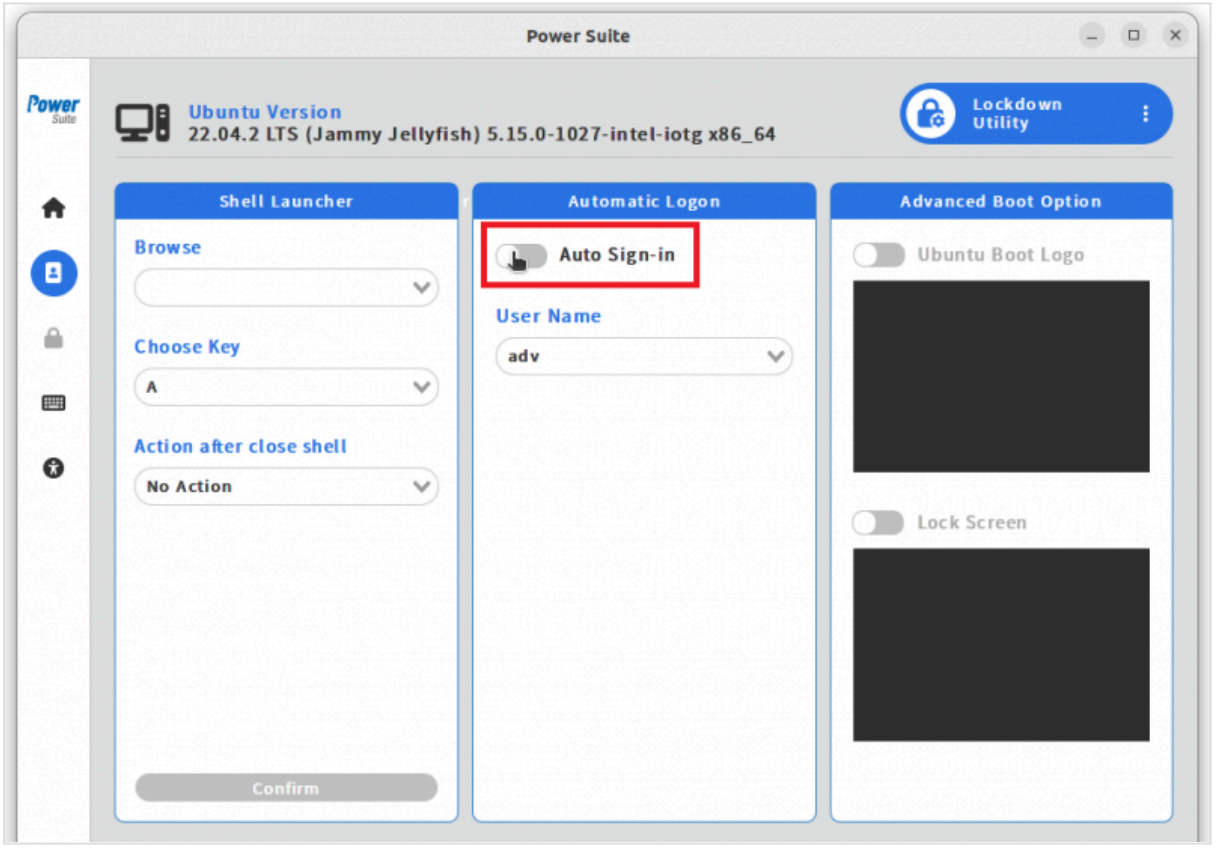
Step1. Select the “Lockdown Utility” page.



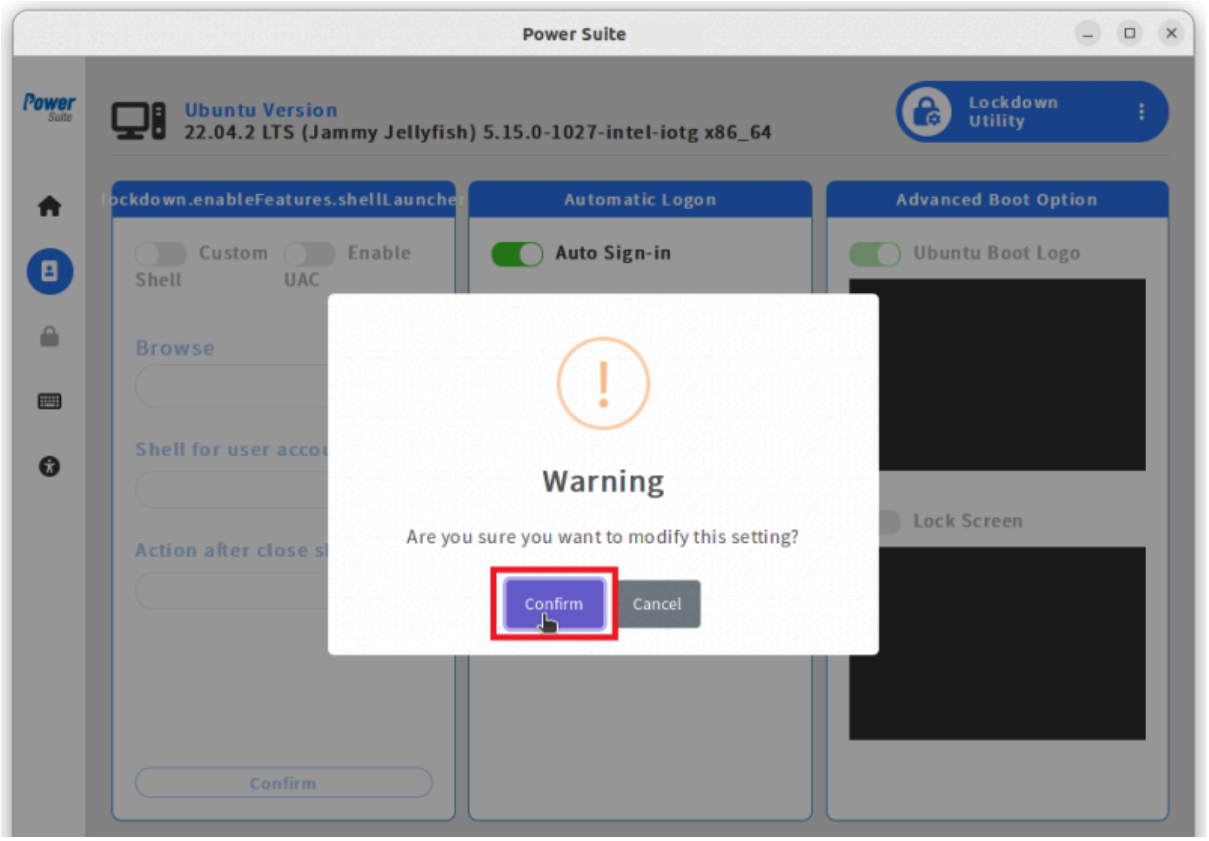
Step2. From Automatic Logon area, choose a user from drop down menu.



Step3. Click on "Auto Sign-in" to enable automatic login feature.



Step4. Click on "Confirm" to modify the setting.



Result

Next time the system is rebooted, Ubuntu will automatically sign-in with the specific user account.

Keyboard Filter

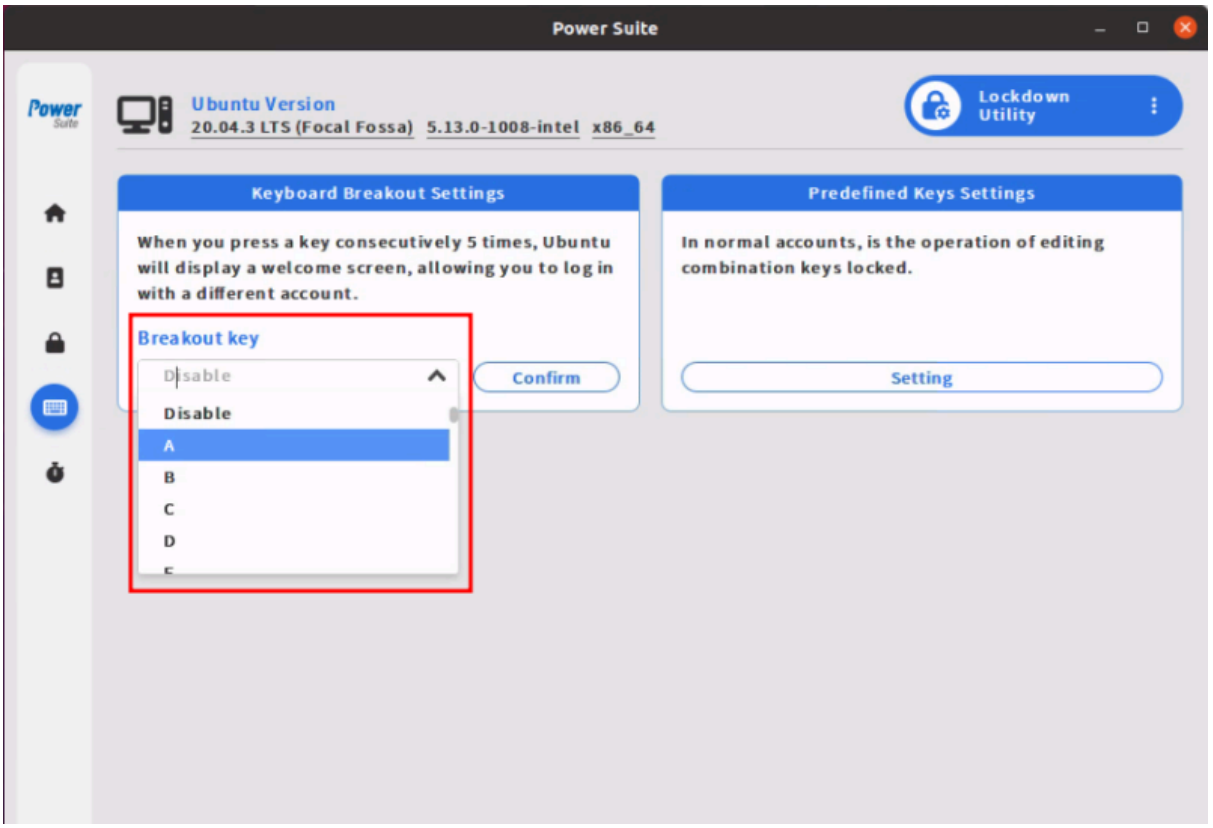
Keyboard Breakout Settings

Brief

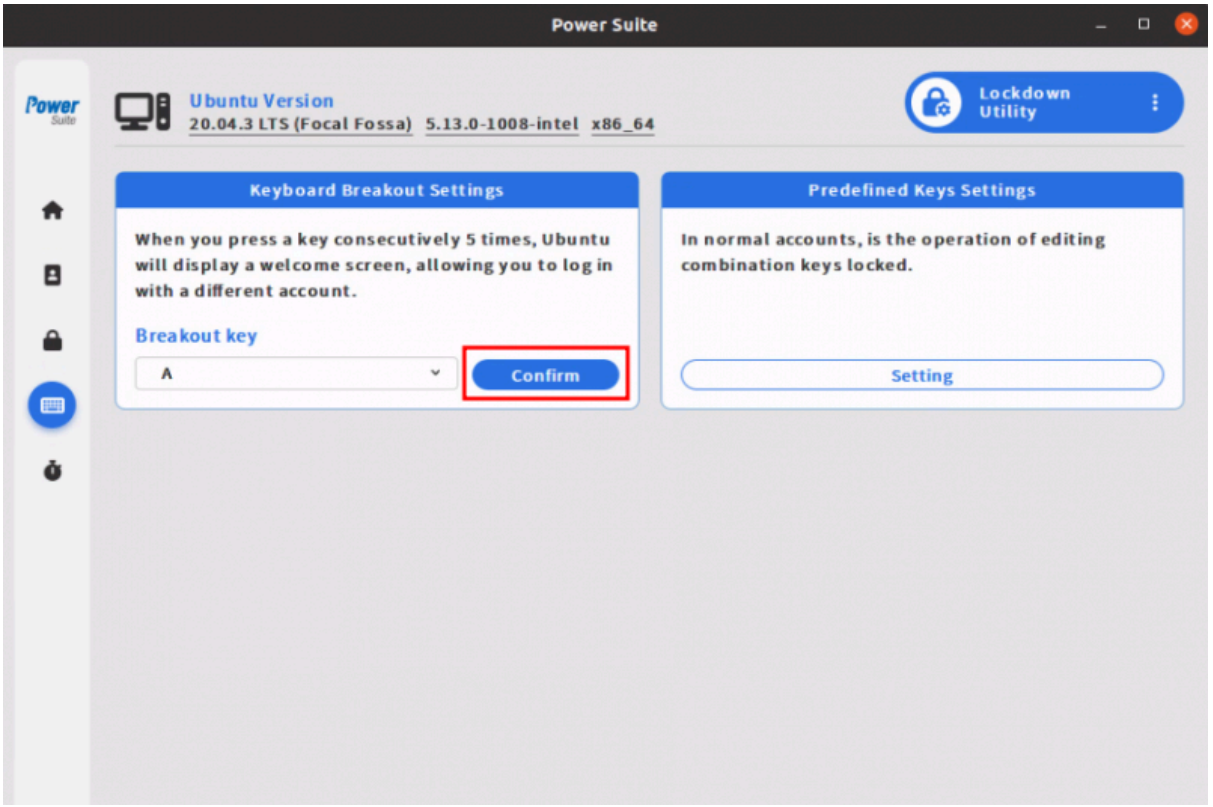
You can configure a breakout key sequence to switch out a locked down account by specifying a key code. When you press the Breakout Key 5 times consecutively, System presents the Logon screen so that you can sign in to a different account.

Steps

Step1. Choose a Key from drop down menu.



Step2. Click on "Confirm" button to save the setting.



Result

Press Breakout Key 5 times consecutively, the system presents Logon screen on Ubuntu desktop.

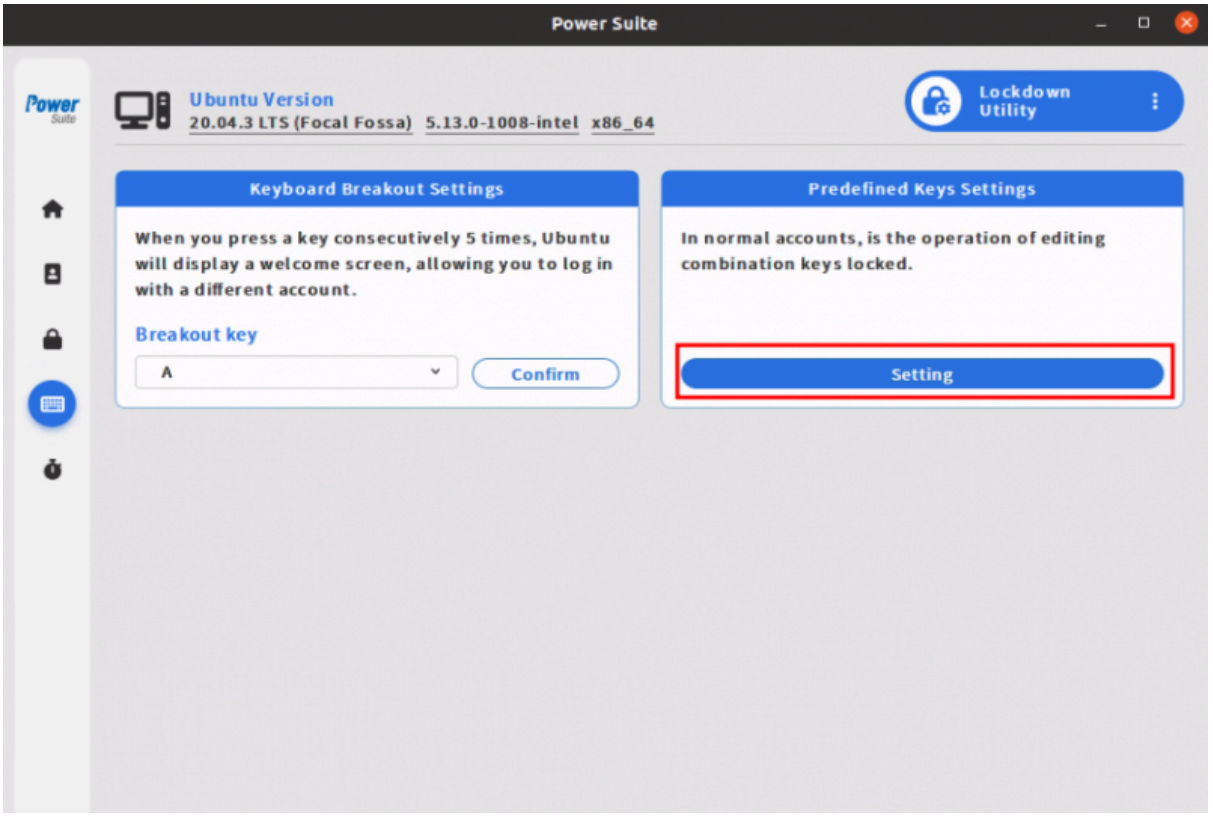
Predefined Keys Settings

Brief

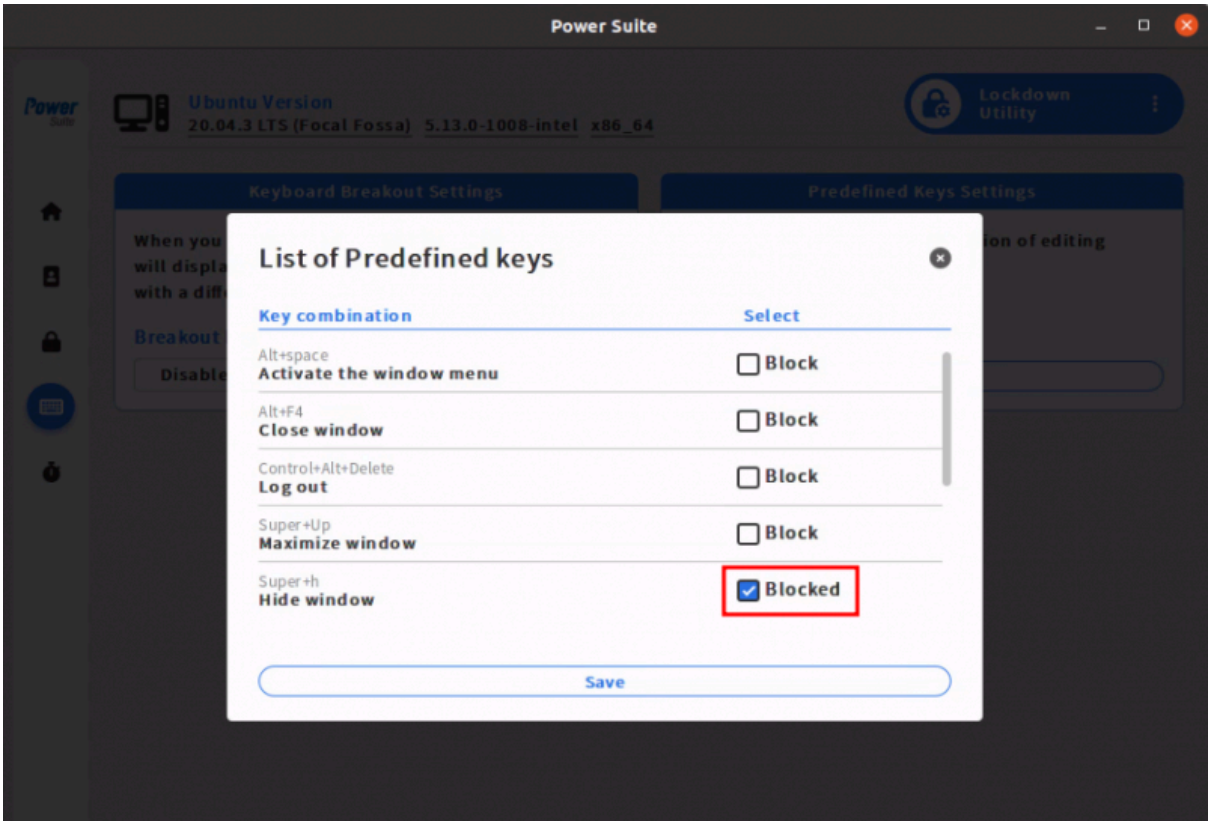
The feature of Predefined Keys Settings is to block selected combination keys to avoid unallowed actions.

Steps

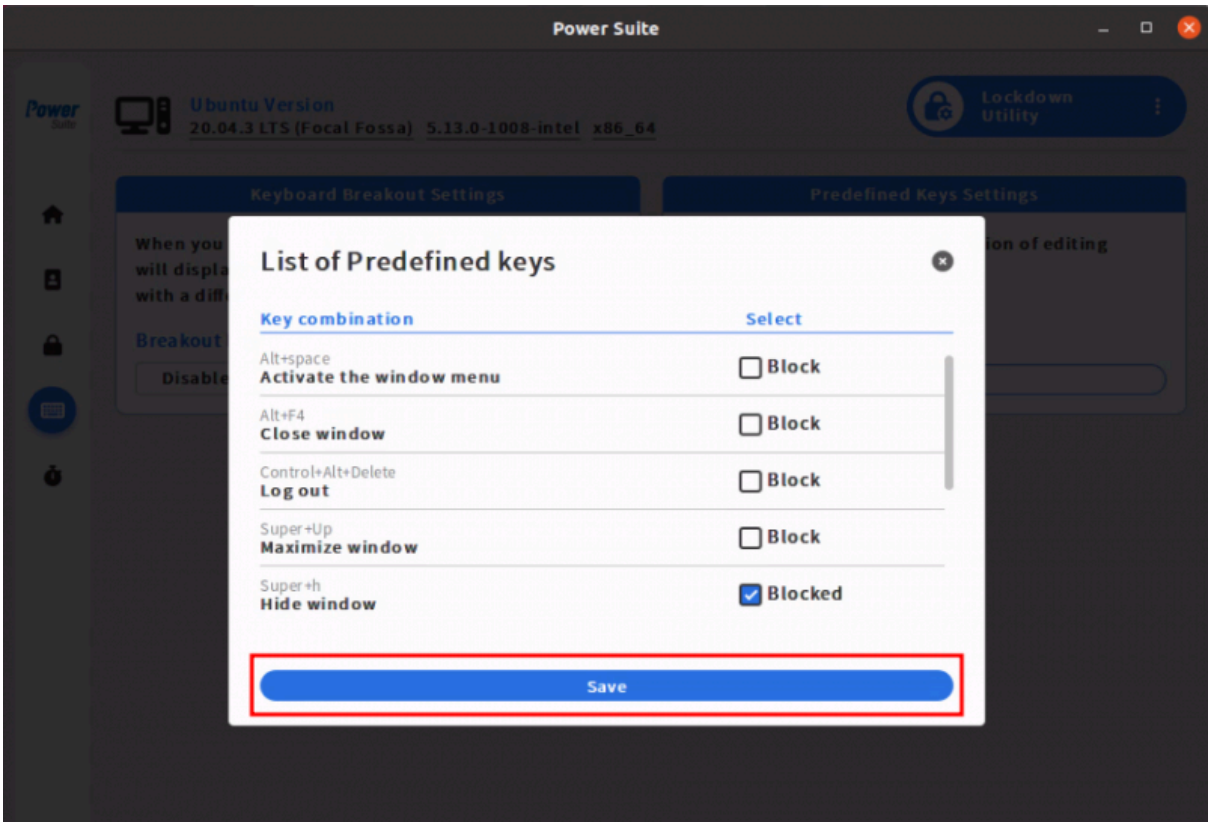
Step1. From "Predefined Keys Settings" function, click on "Setting" button.



Step2. Check the selected combination key to block the function.



Step3. Click on "Save" button to save the setting.



Result

No function after pressing selected combination keys.

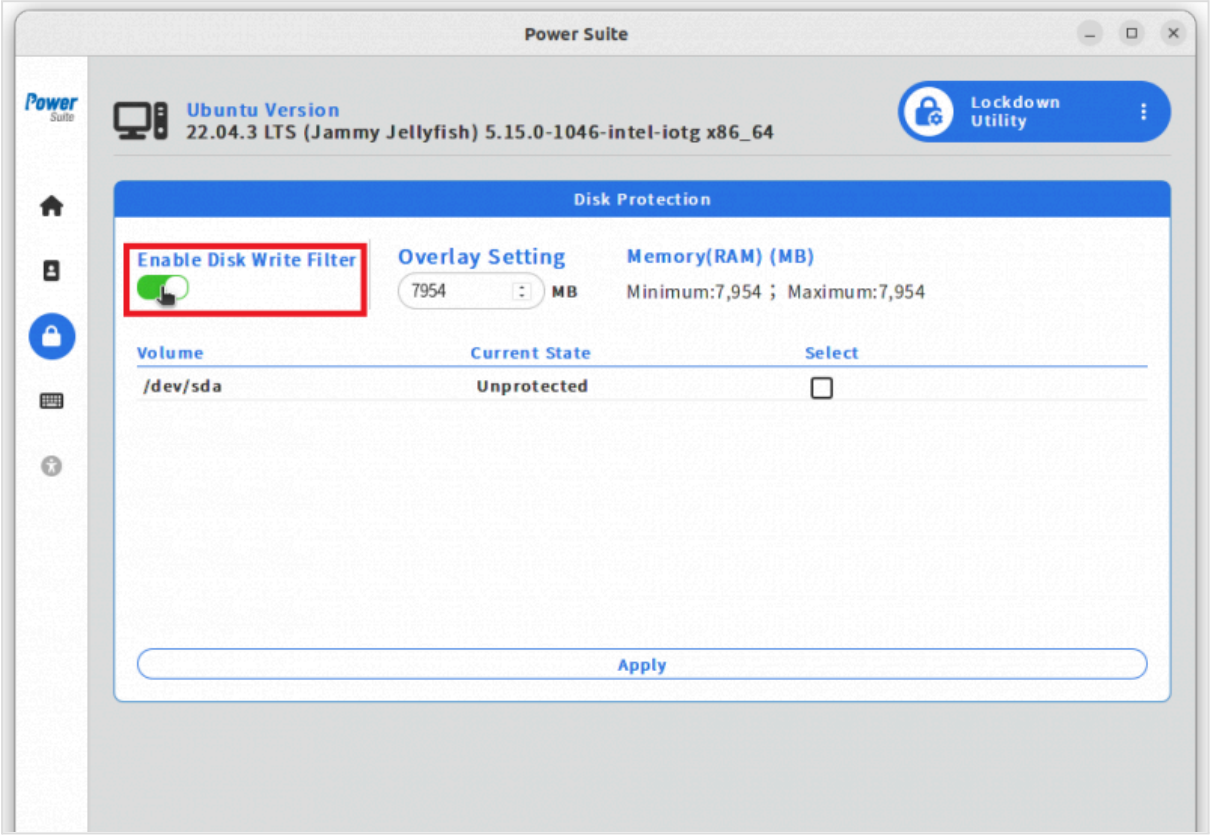
Disk Protection

Brief

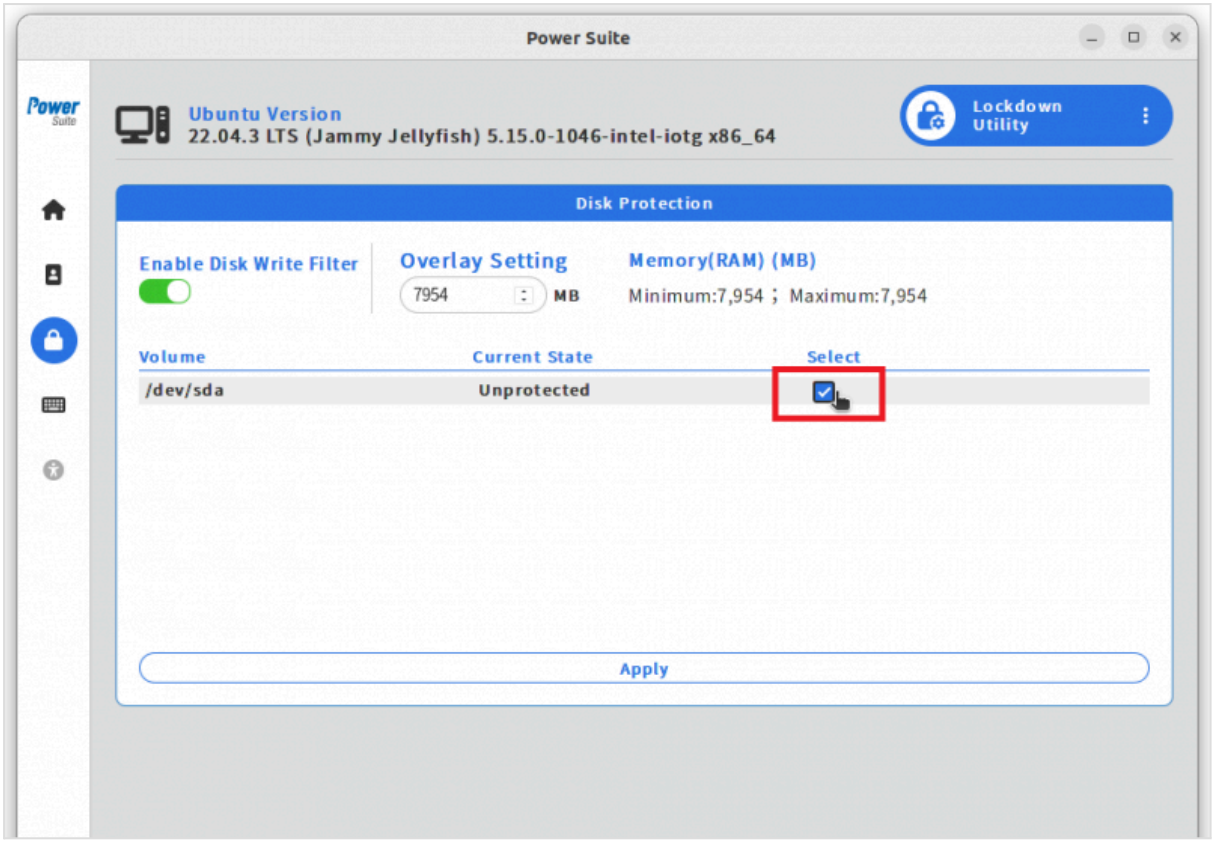
Enabling this function to make a read-only root file system. This prevents any changes to the root file system that could alter system behavior and allows for a simple reboot to restore the system to its original state.

Steps

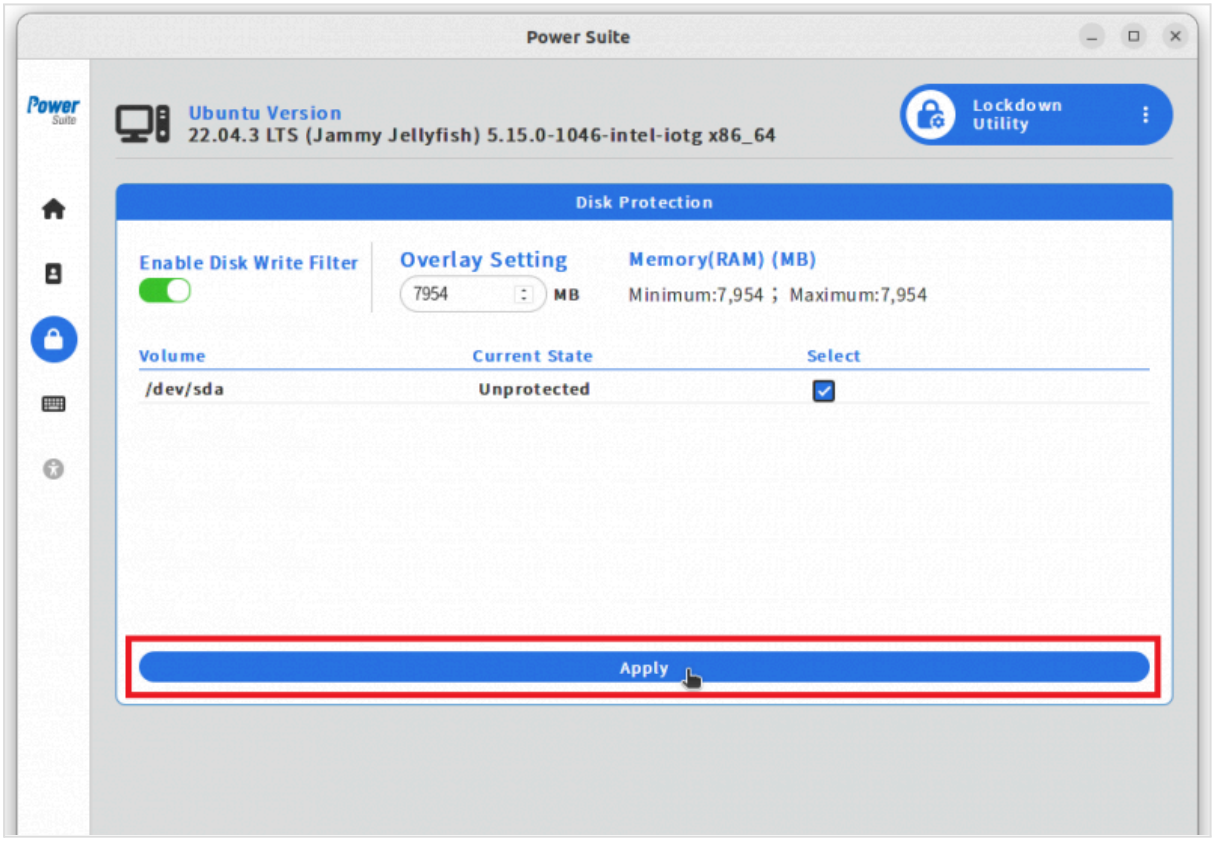
Step1. Click on "Enable Disk Write Filter"



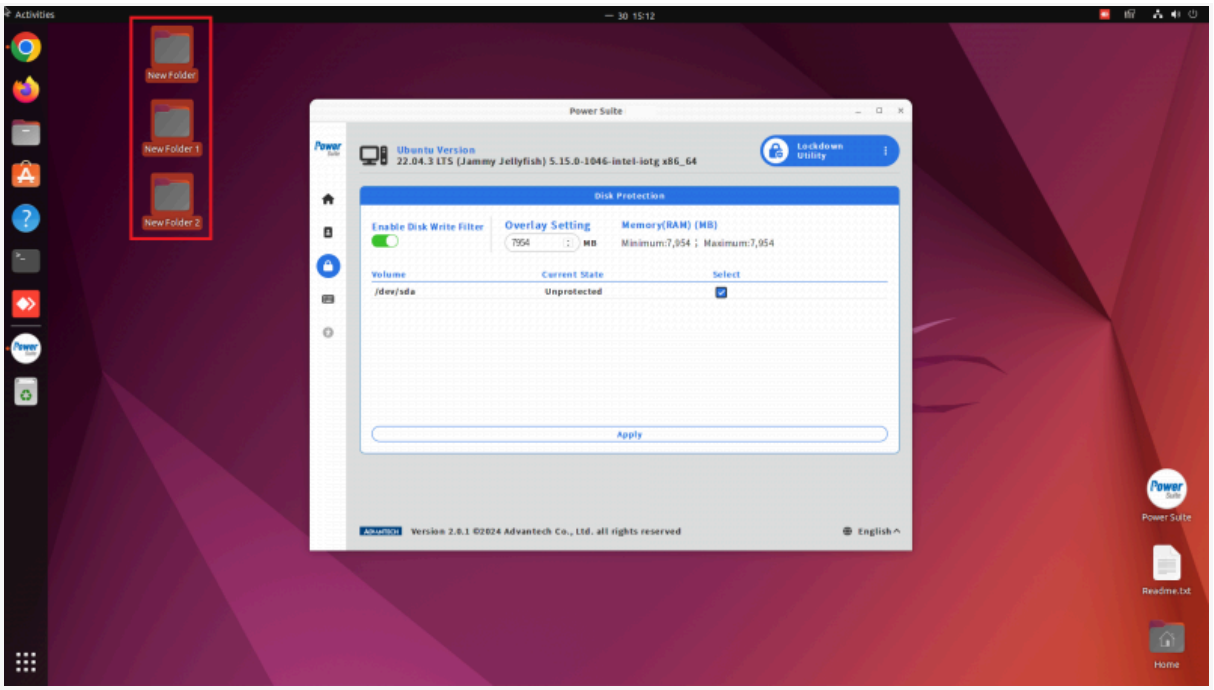
Step2. Select target volume to protect, for Ubuntu only /dev/sda can be selected.



Step3. Click on "Apply" button to modify the settings.



Step4. To test the function, try to add some new folders to the desktop.



Step5. Reboot Ubuntu.

Result

The system restore to its original state and the folders you added in **Step4** are disappeared.

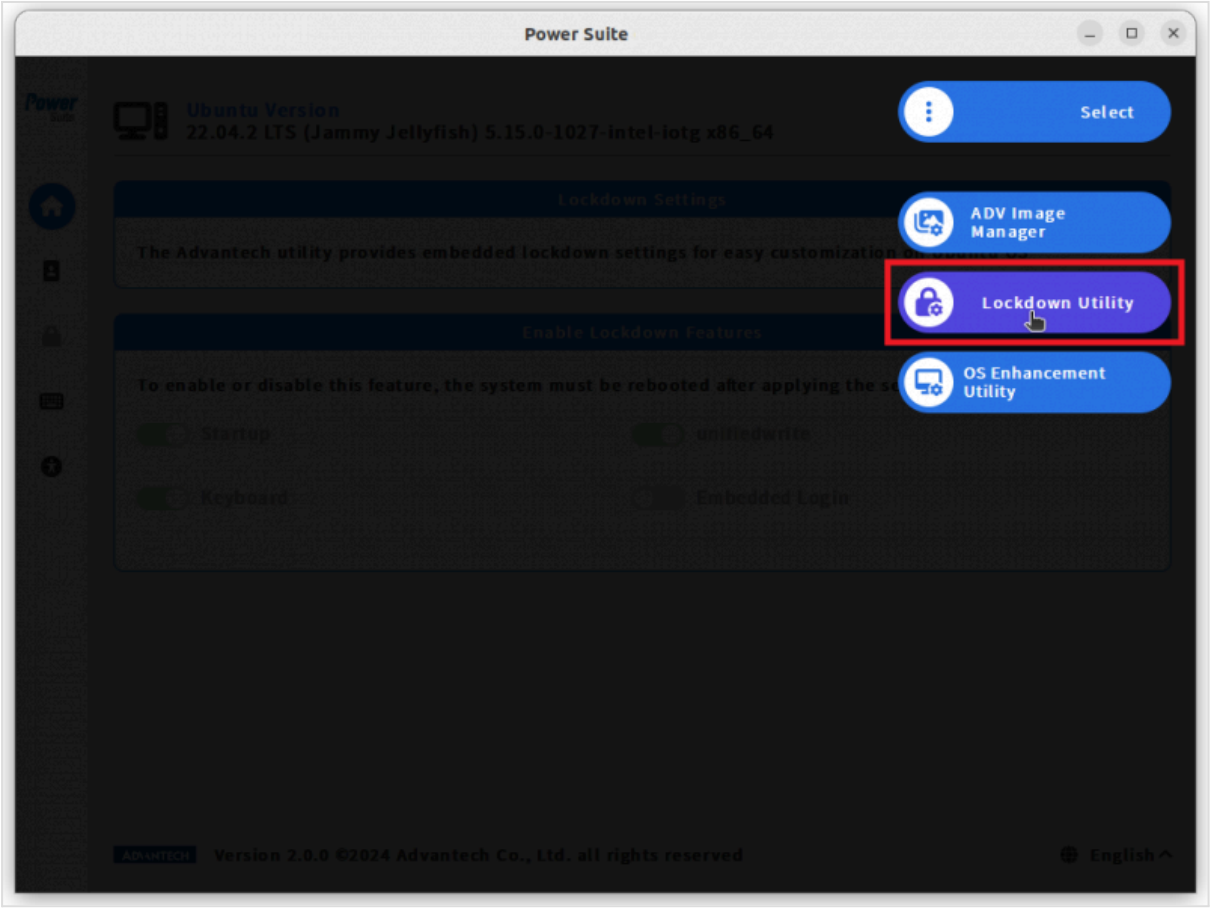
Advanced Shutdown Option

Brief

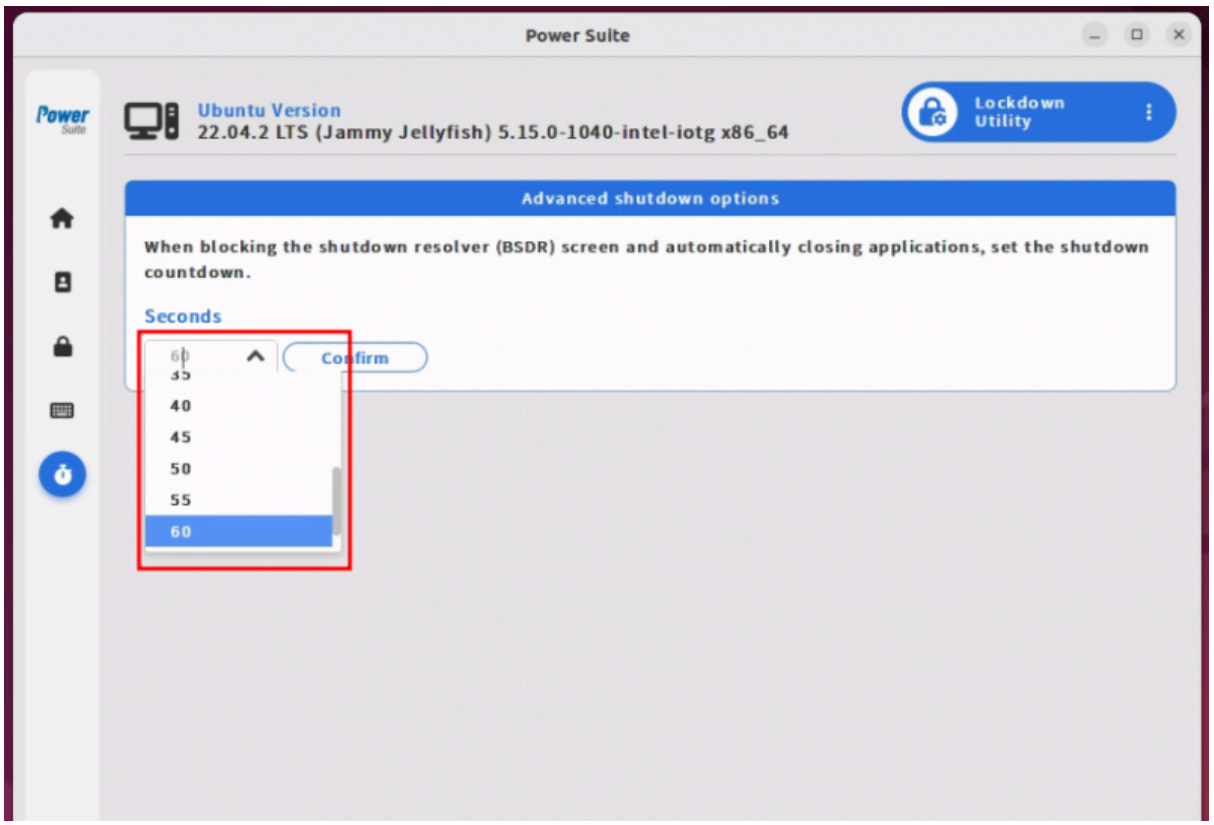
The purpose of this function is to modify the countdown seconds after pressing the power off button.

Steps

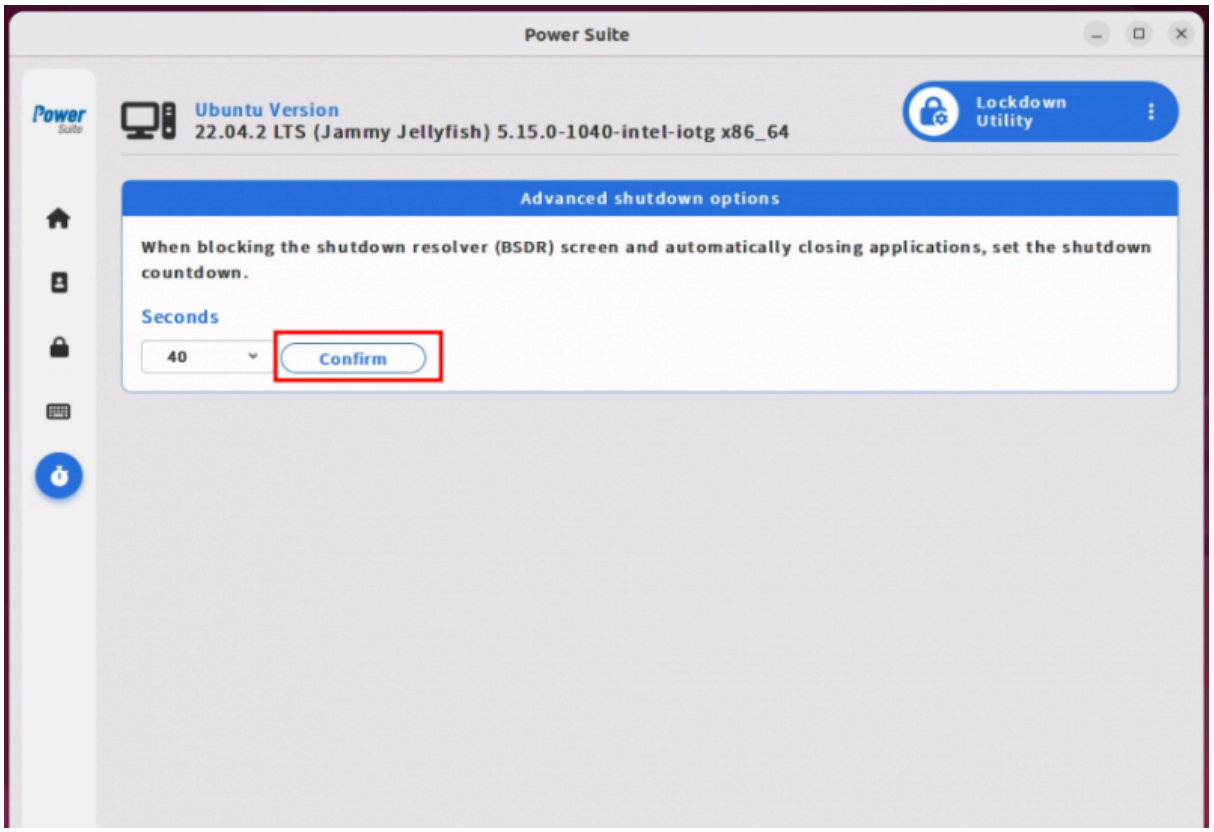
Step1. Select the “Lockdown Utility” page.



Step2. Set shutdown countdown seconds(5s~60s).

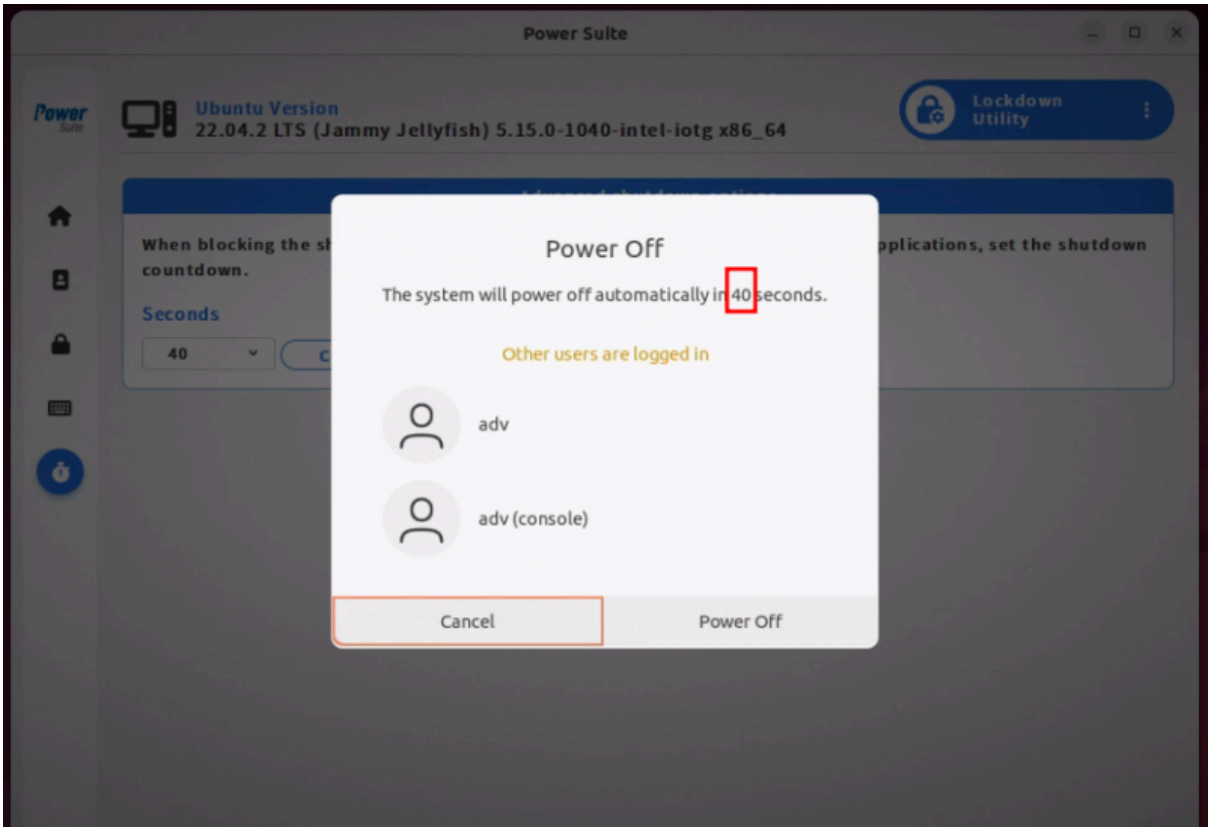


Step3. Click on "Confirm" to modify the setting.



Result

The countdown seconds after pressing the power off button will be modified.



Shell Launcher

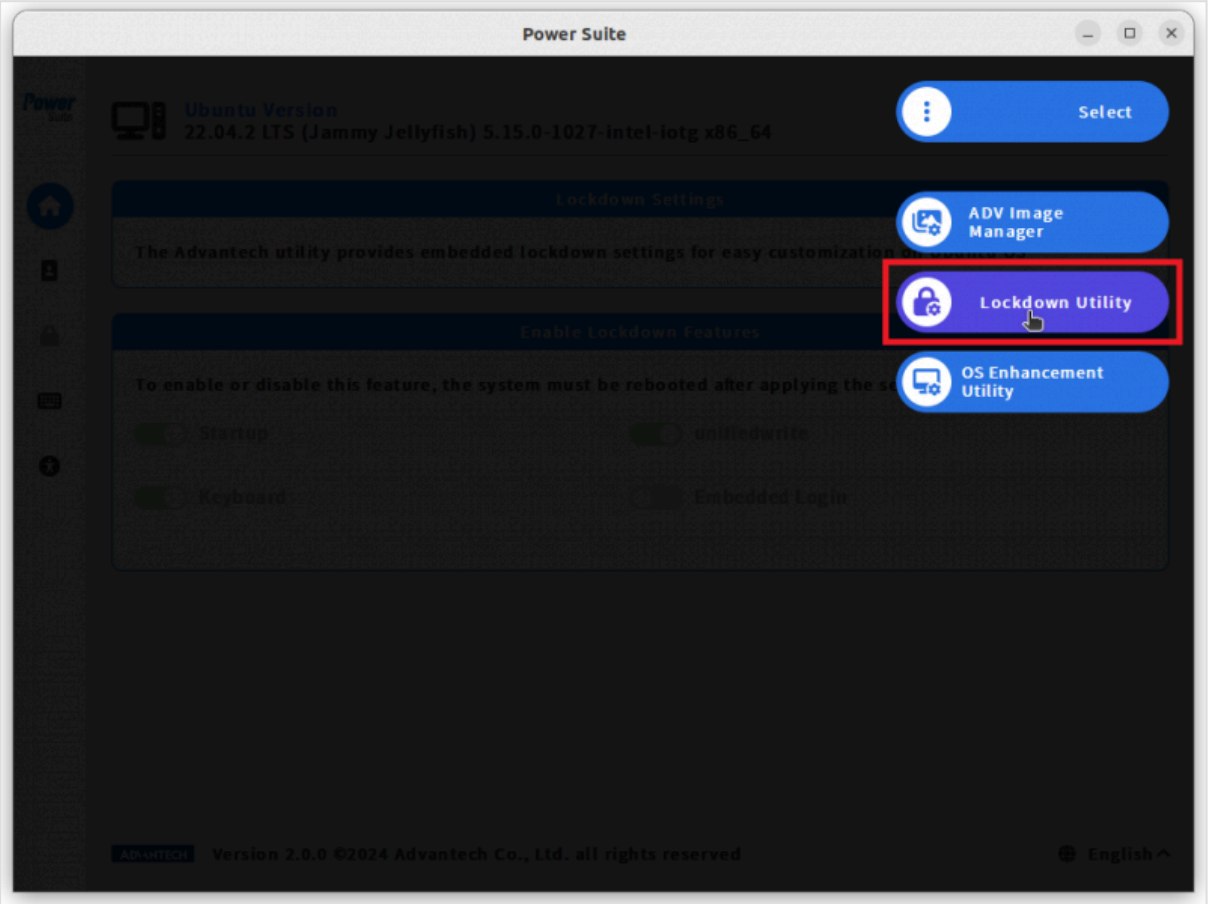
Brief

The purpose of this function is to automatically run an application on power on.

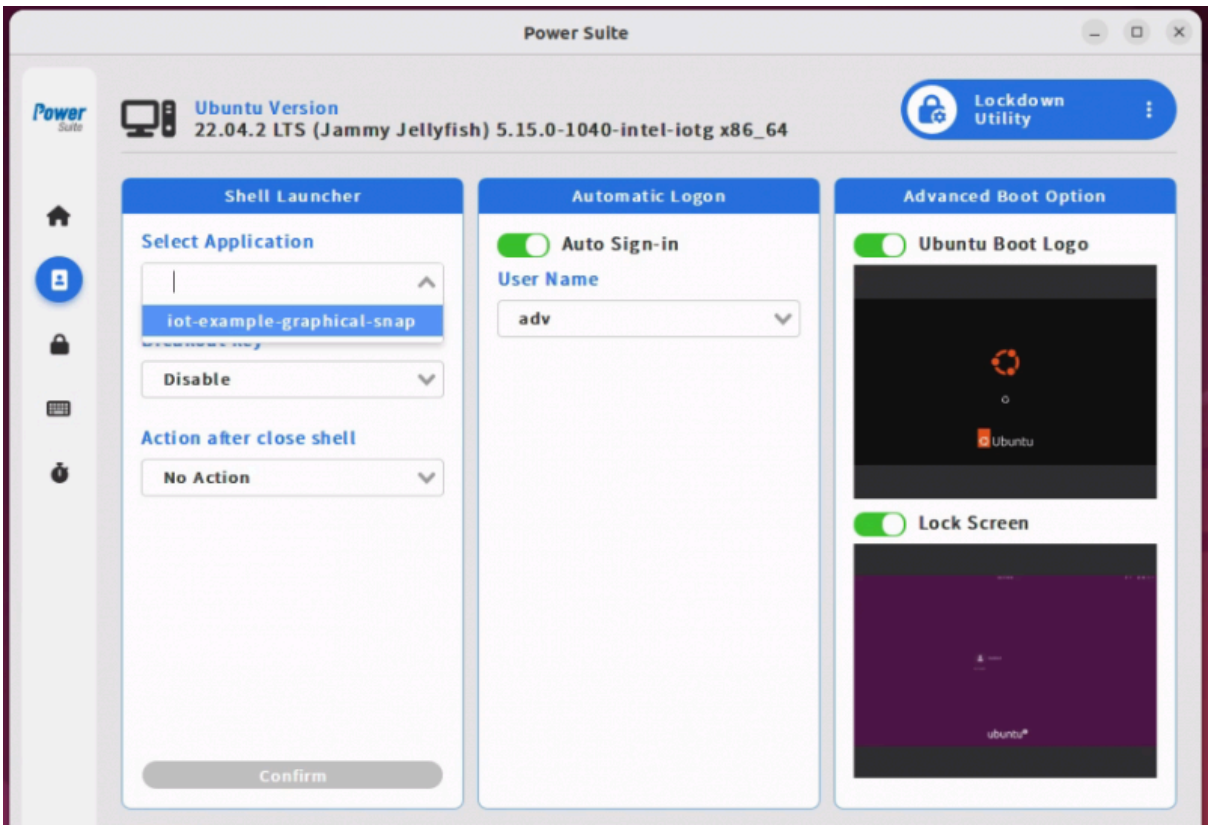
"Shell Launcher" only supports snap's application currently, how to create a snap installation package that supports this feature, you can refer to Ubuntu Frame docs.

Steps

Step1. Select the “Lockdown Utility” page.



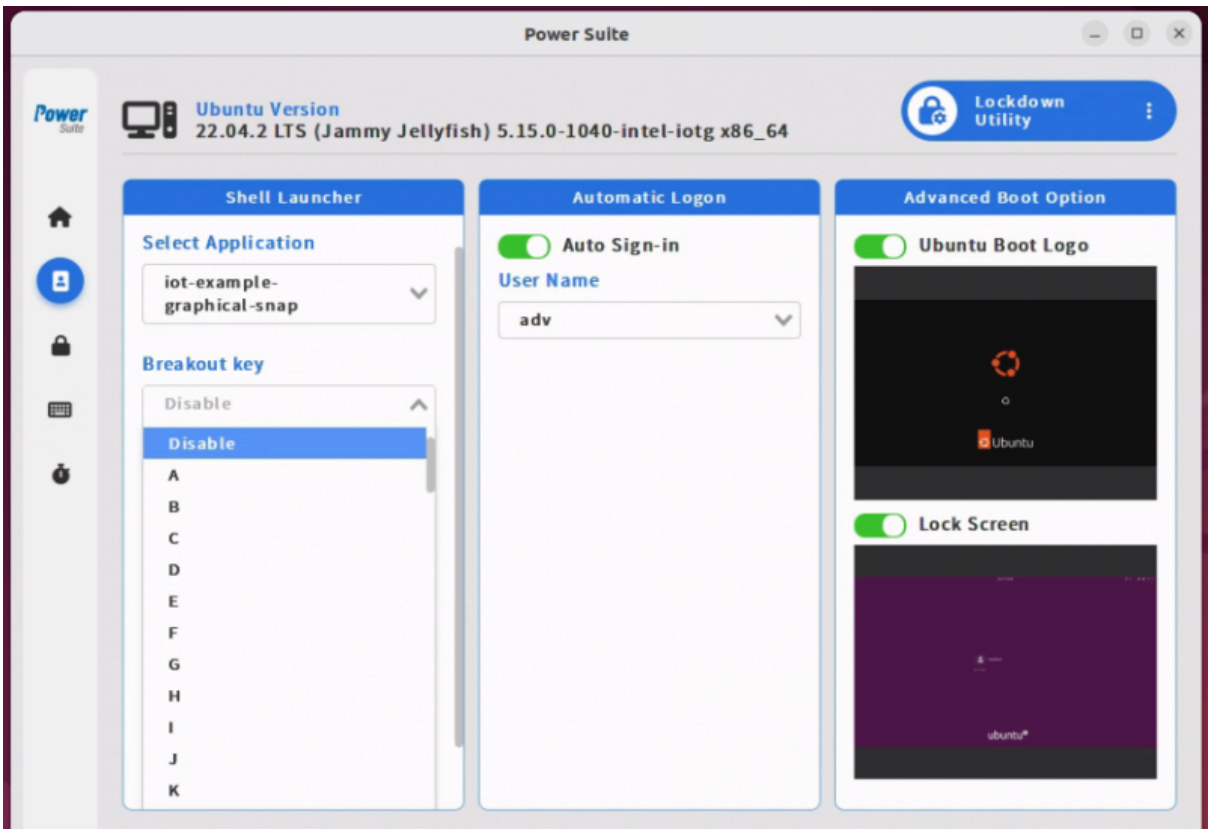
Step2. From "Shell Launcher" area, choose an application from drop down menu.



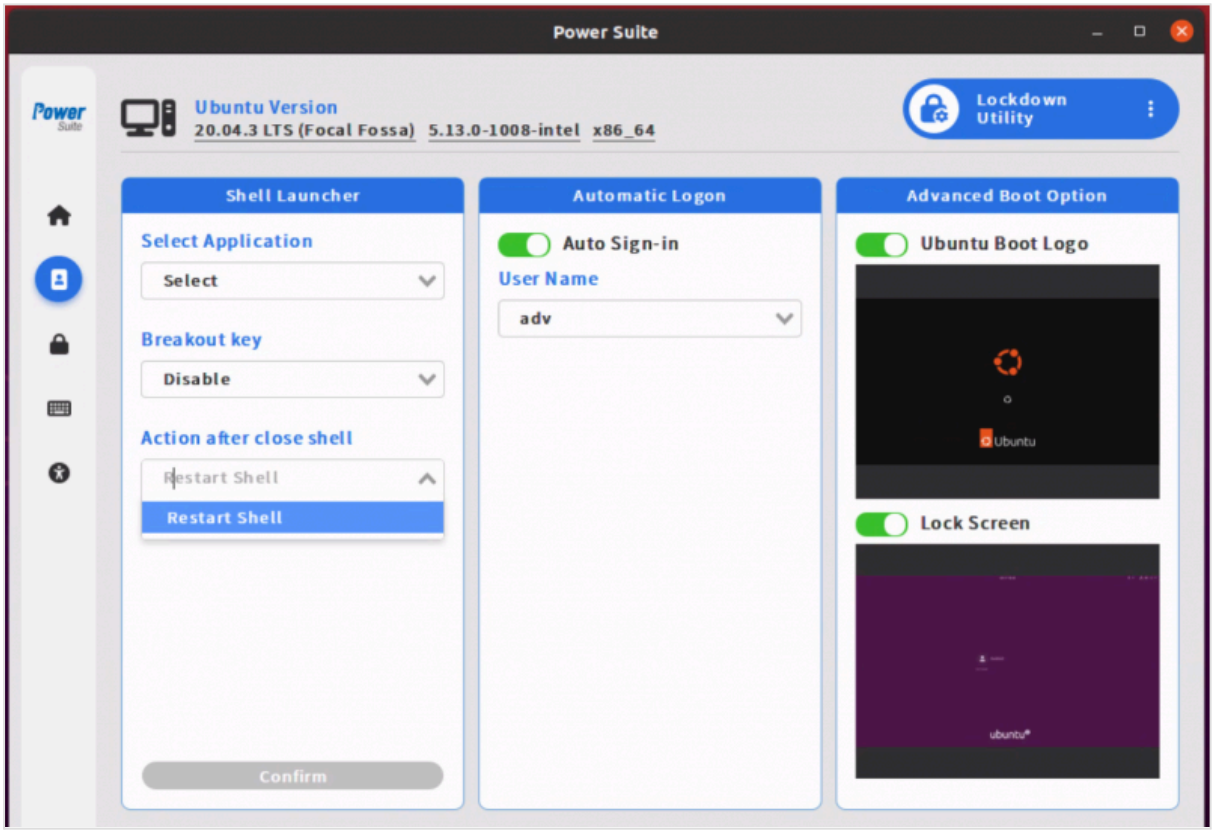
Step3. Choose "breakout key" from drop down menu.

The "breakout key" is designed to escape shell launcher mode after pressing the key 5 times.

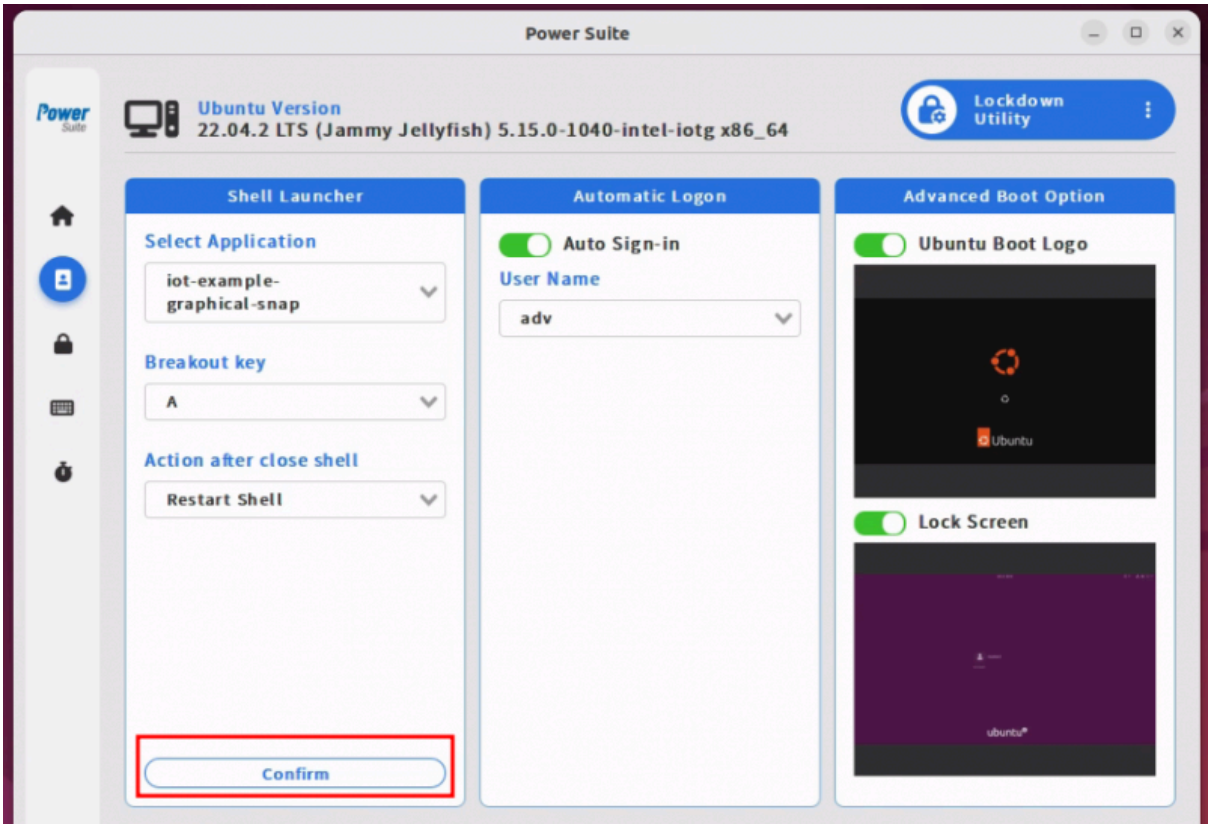
Note: If you don't want to set the 'break_out key', you can also use remote SSH to exit Shell Launcher mode, FAQ: How to escape shell_launcher mode without using breakout key



Step4. Choose "action after close shell" from drop down menu.



Step5. Click on "Confirm" to modify the setting.



Result

The selected application will automatically execute after restarting.

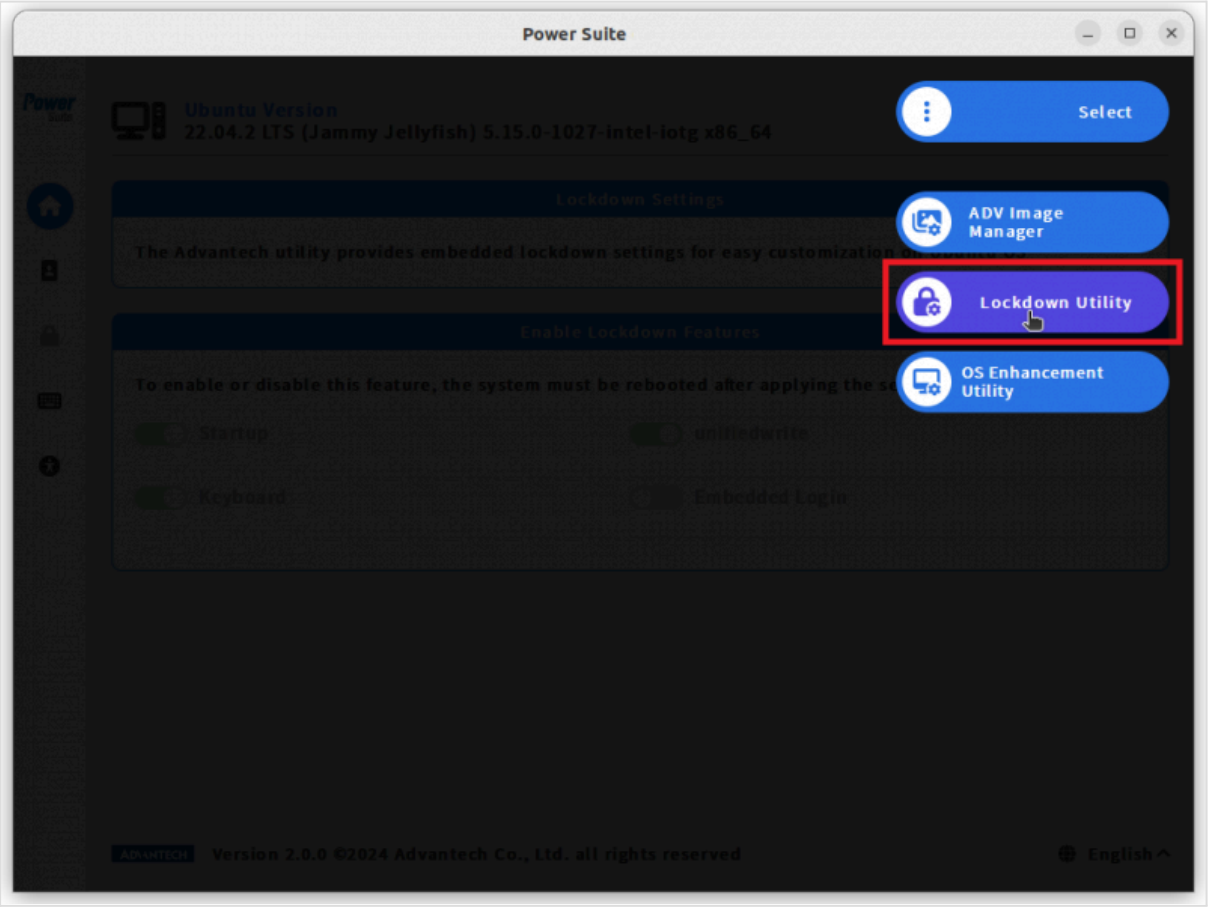
Advanced Boot Option

Brief

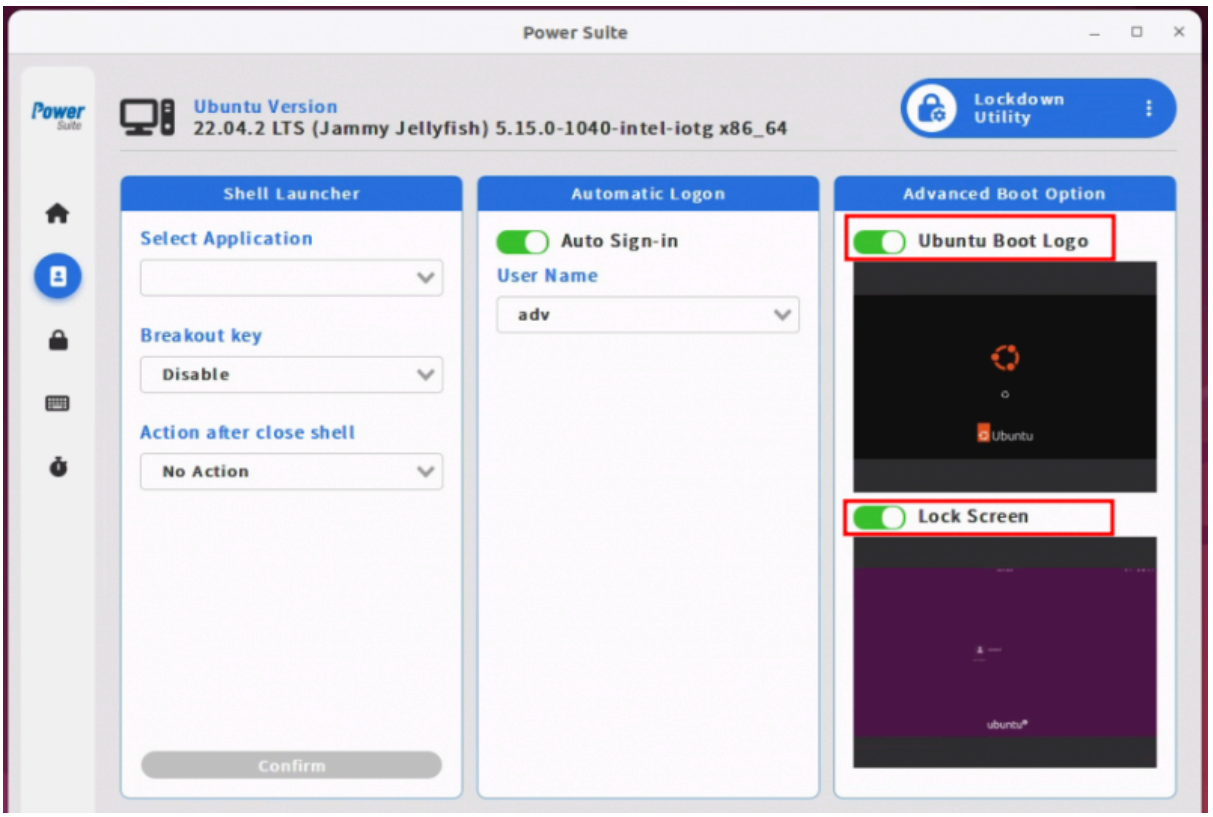
The purpose of this function is to remove the Ubuntu logo that appears when turning on and off the computer and locking the screen.

Steps

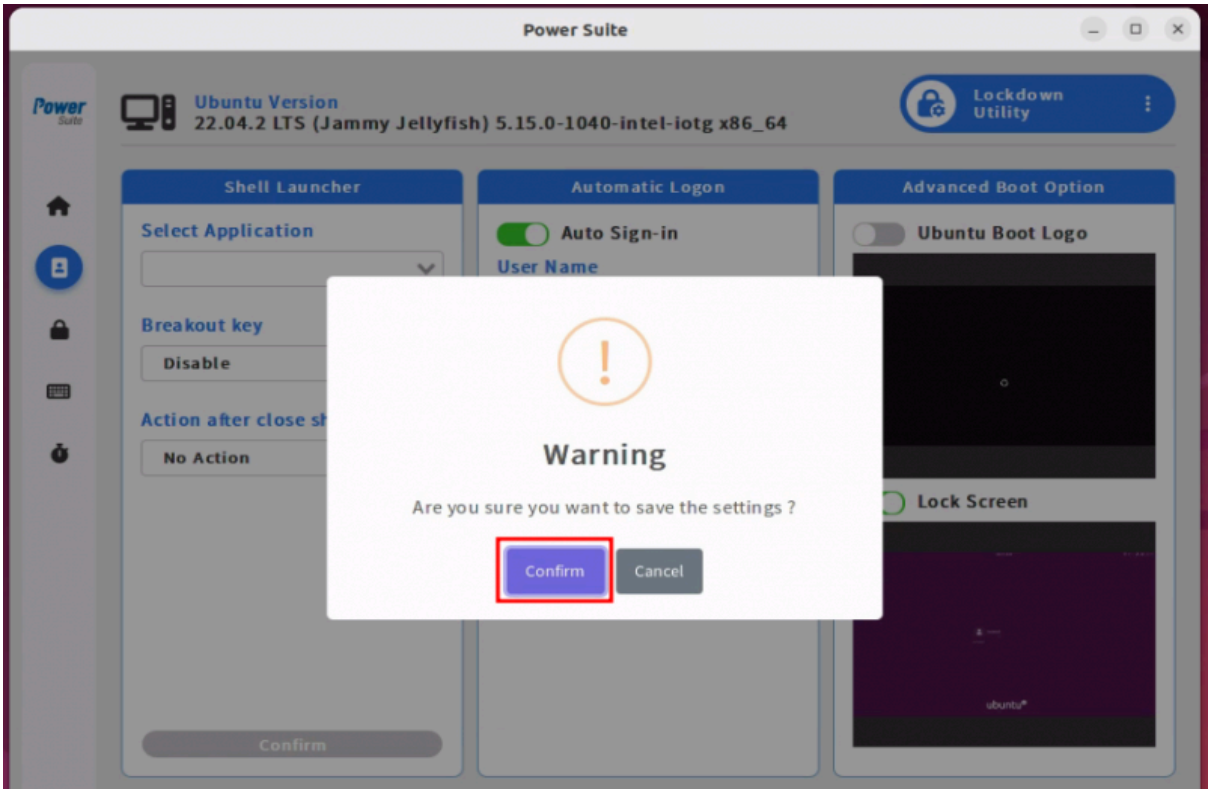
Step1. Select the “Lockdown Utility” page.



Step2. From "Advanced Boot Option" area, click "Ubuntu Boot Logo" or "Lock Screen"



Step3. Click on "Confirm" to modify the setting.



Result

The next time you reboot or enter the lock screen, you will no longer see the Ubuntu logo.