



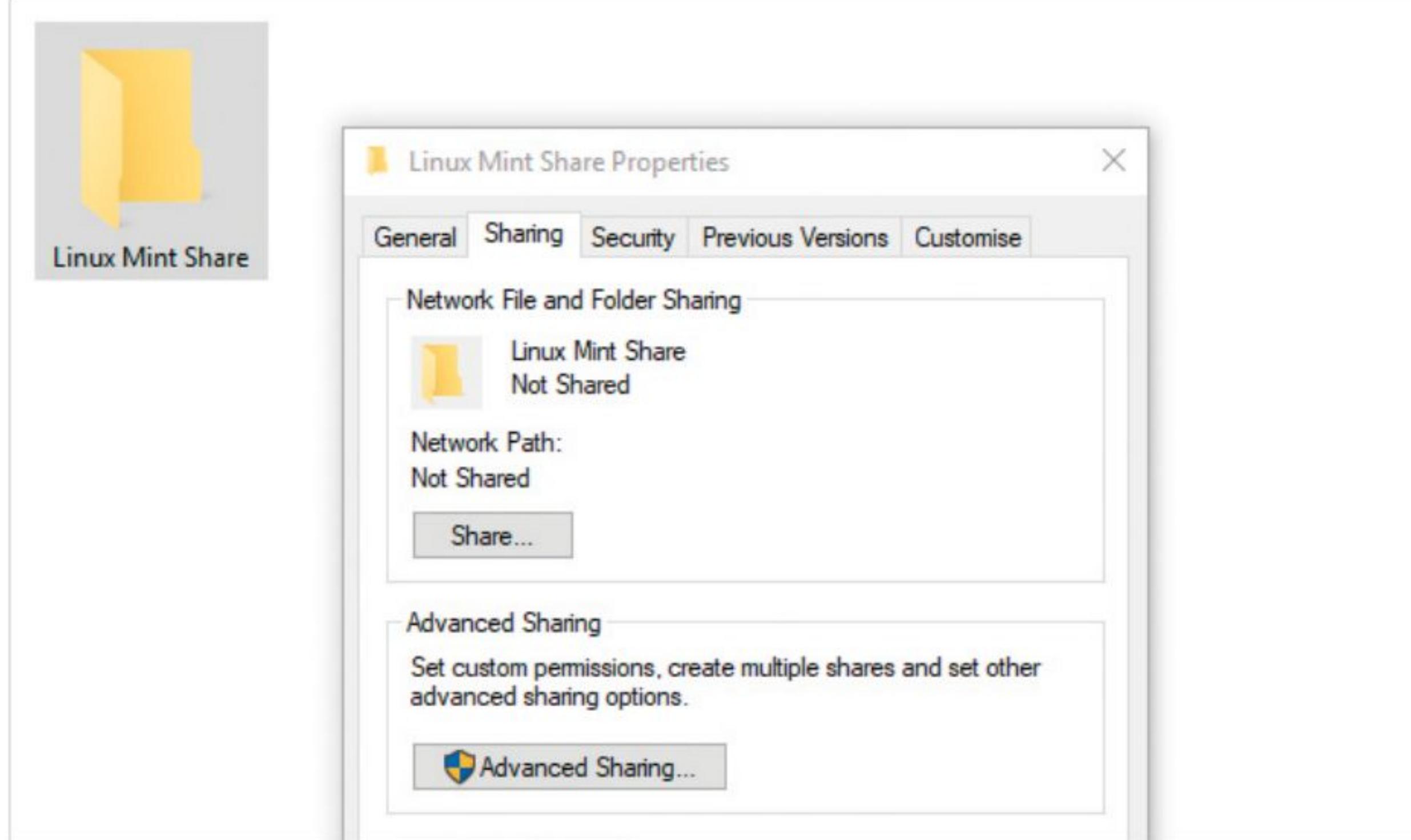
Accessing Windows Shared Folders

One of the often misjudged remarks about Linux is its inability to communicate with, and use a shared folder or file from, Windows. That's simply wrong. You can happily use Linux Mint and access any Windows-based shared resources.

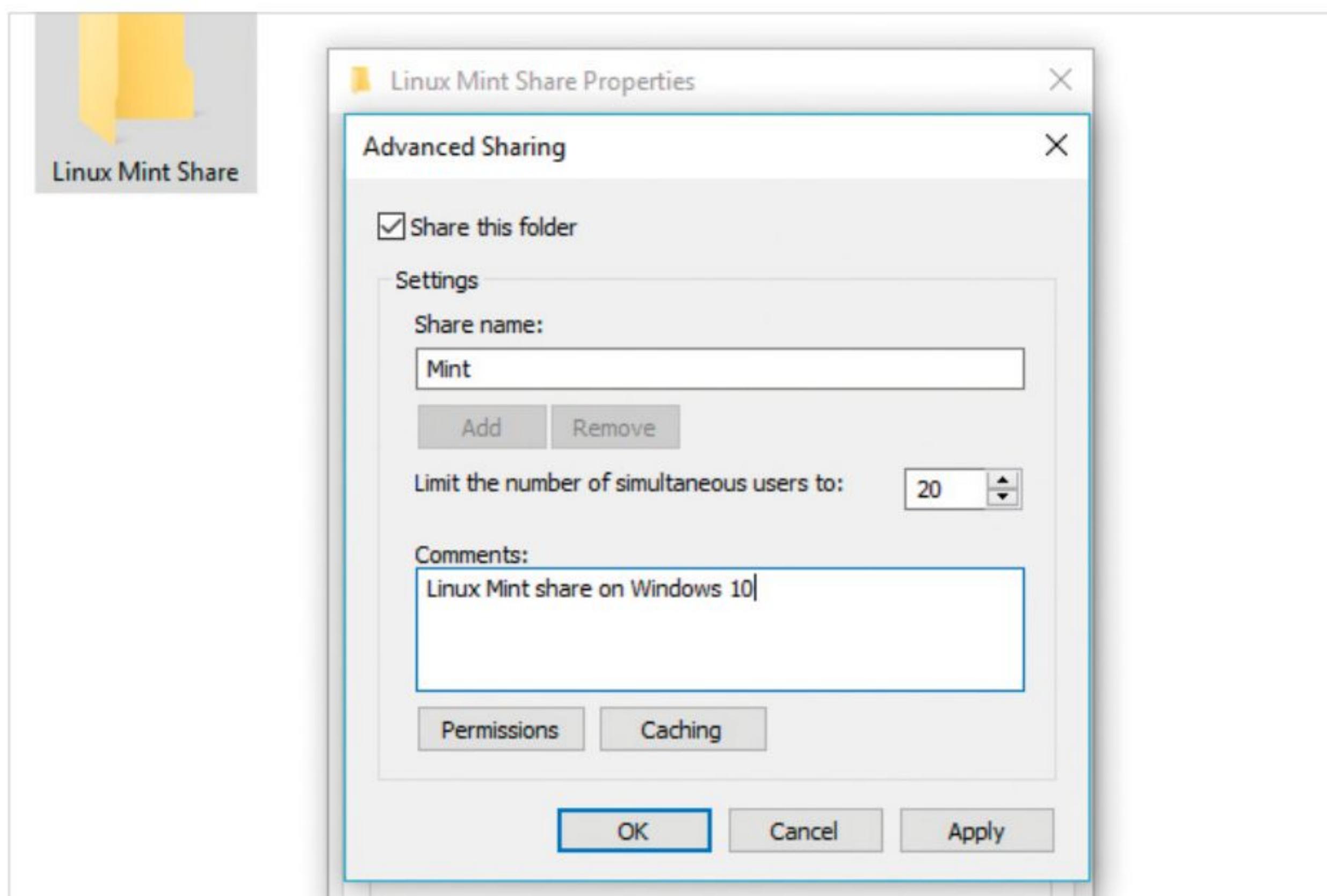
ACCESSING SHARES

Accessing Windows Shares and even shared network devices such as NAS are easy to set up and use with Mint. However, you do have to be aware that this is a different system to that of Windows.

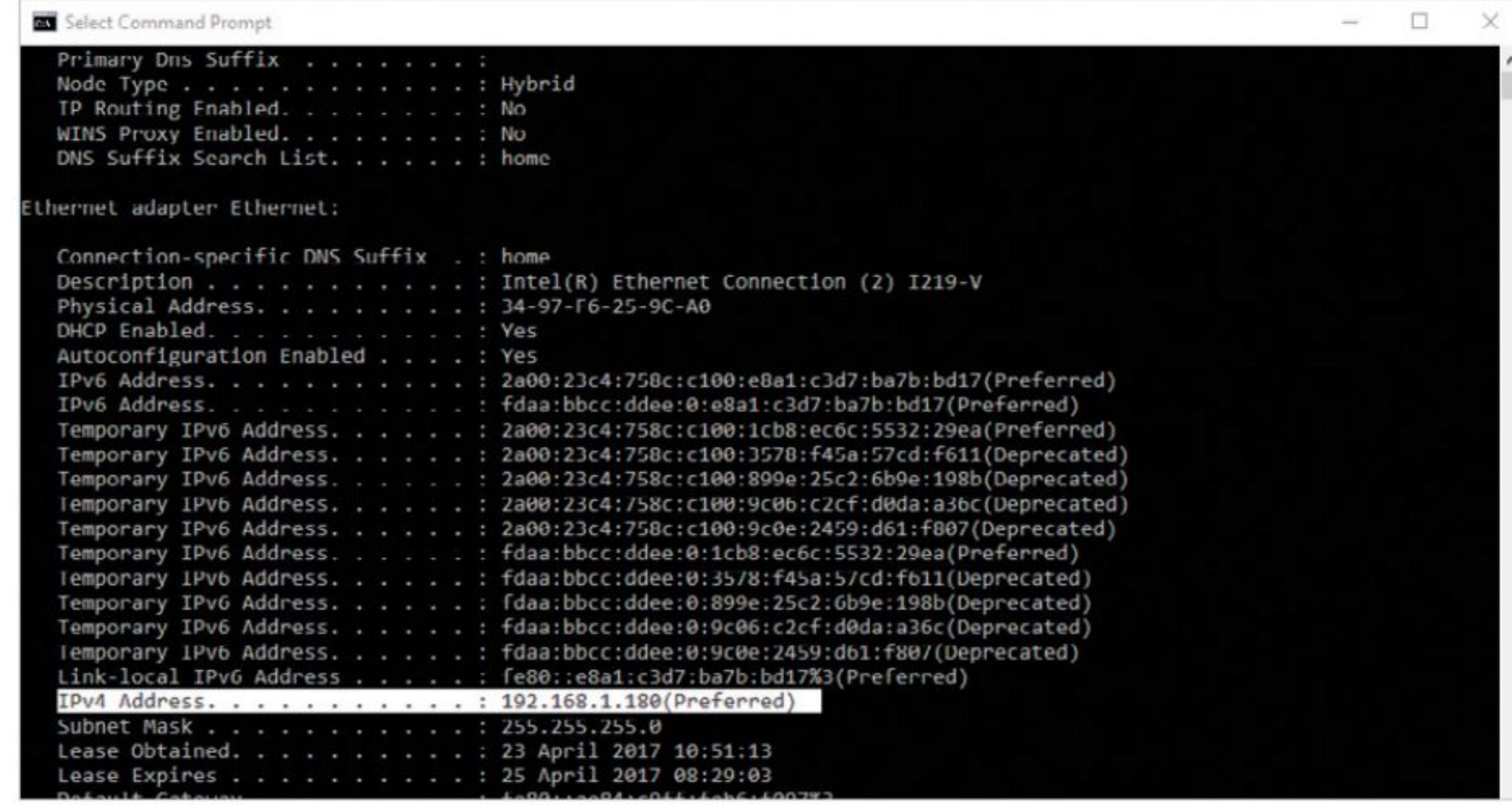
STEP 1 To connect to a Windows share, Mint uses the Samba set of networking protocols, defined as smb when you try to make the connection. Let's start with a quick example. On a Windows PC, create a share: either a drive or a folder and enable it as shared by right-clicking, then Properties > Sharing > Advanced Sharing.



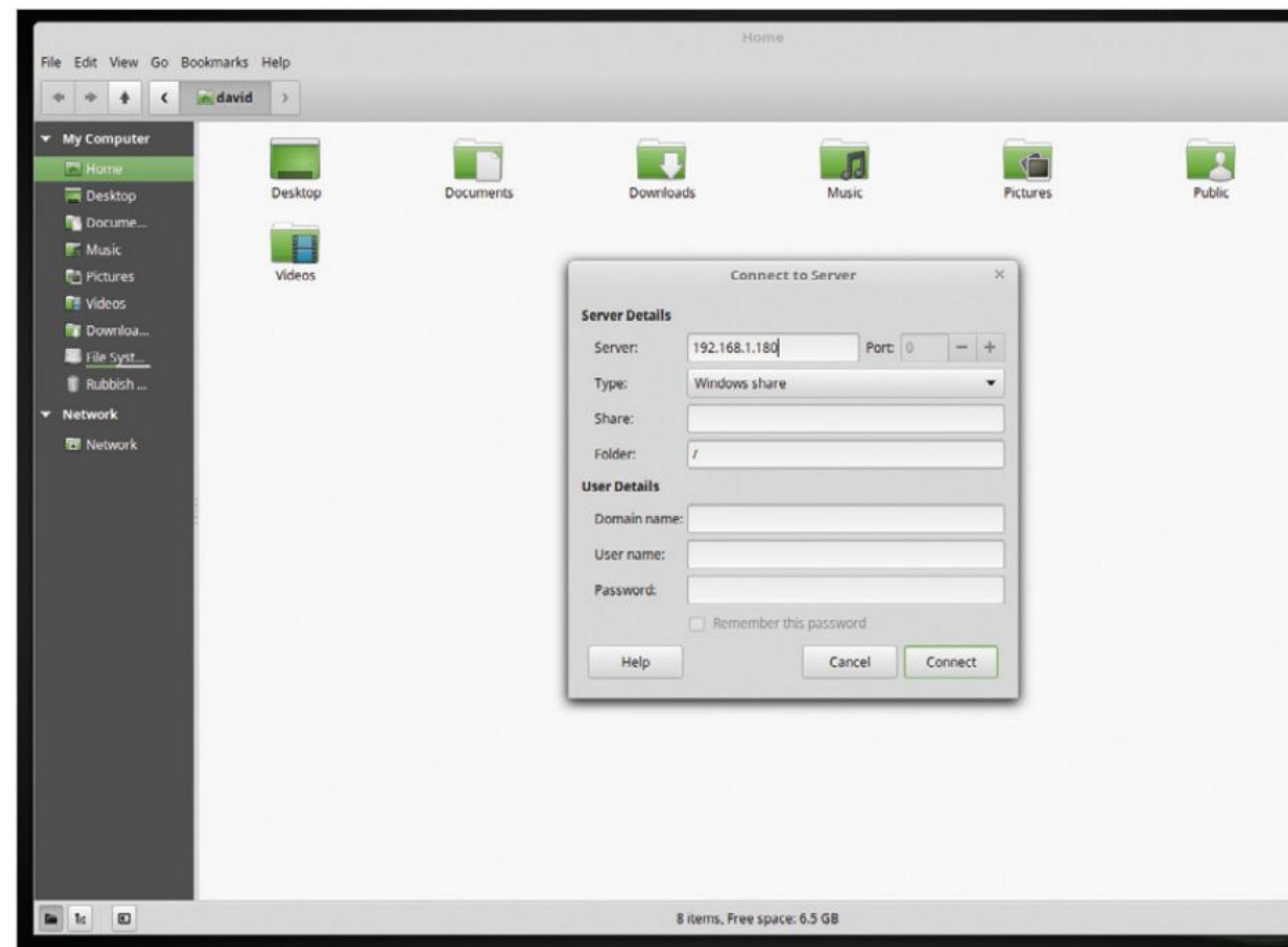
STEP 2 In the Advanced Sharing console tick the Share This Folder box and enter a name for the shared resource. You can also add any comments that help to identify the resource on the network. Click on the OK button when you're done, then Close for the resource properties window.



STEP 3 You've just created a Windows share. First though, get the Windows PC's IP address by right-clicking the Windows Start button and select Command Prompt. Now enter: ipconfig /all. Look for the IPv4 Address entry, our example is: 192.168.1.180.

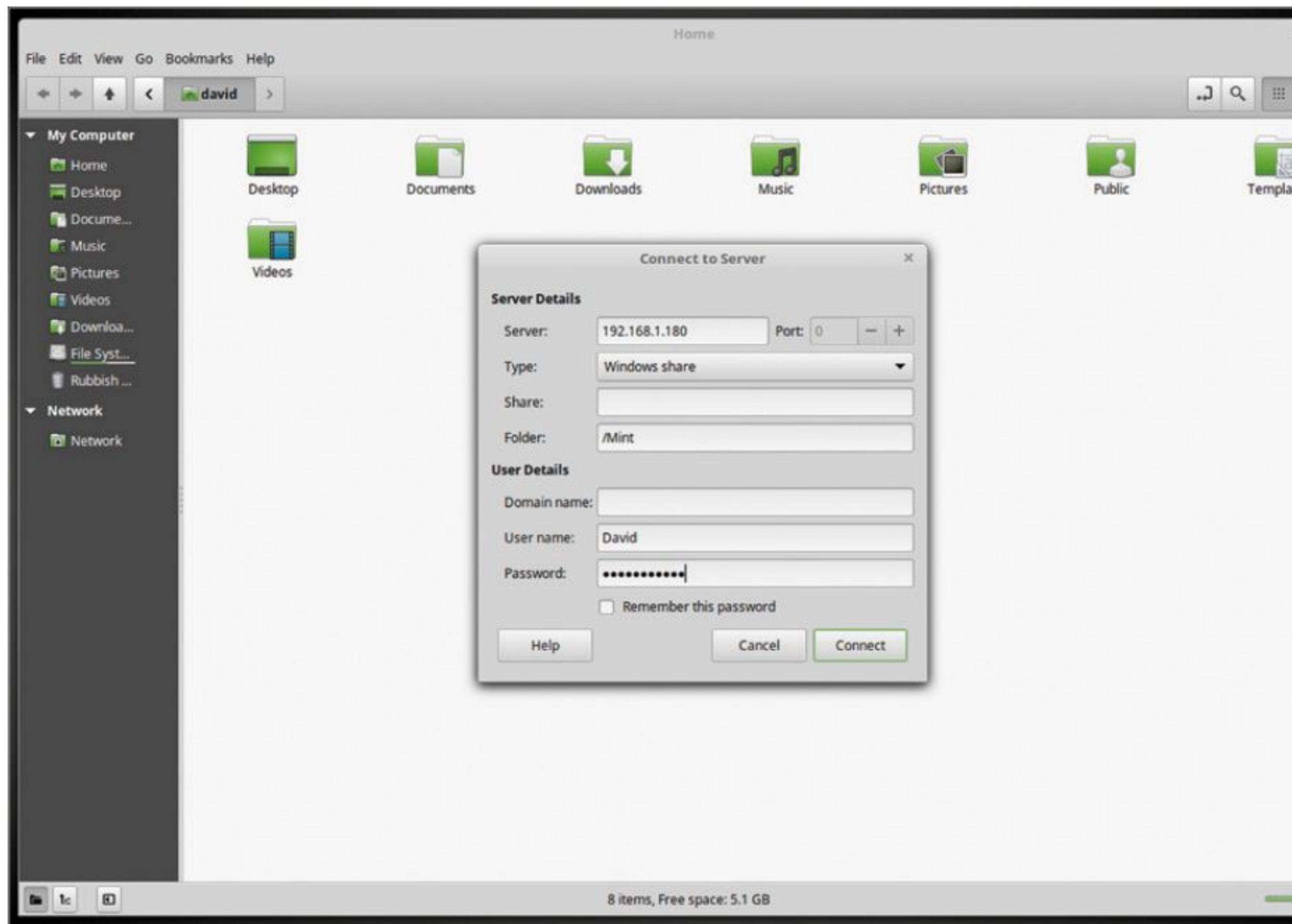


STEP 4 On the Linux Mint computer, open Nemo file manager and click File > Connect to Server. Make sure Windows Share is the chosen Type, use the drop-down menu if not, and in the Server text box enter the IP address of the Windows PC. For example: 192.168.1.180.

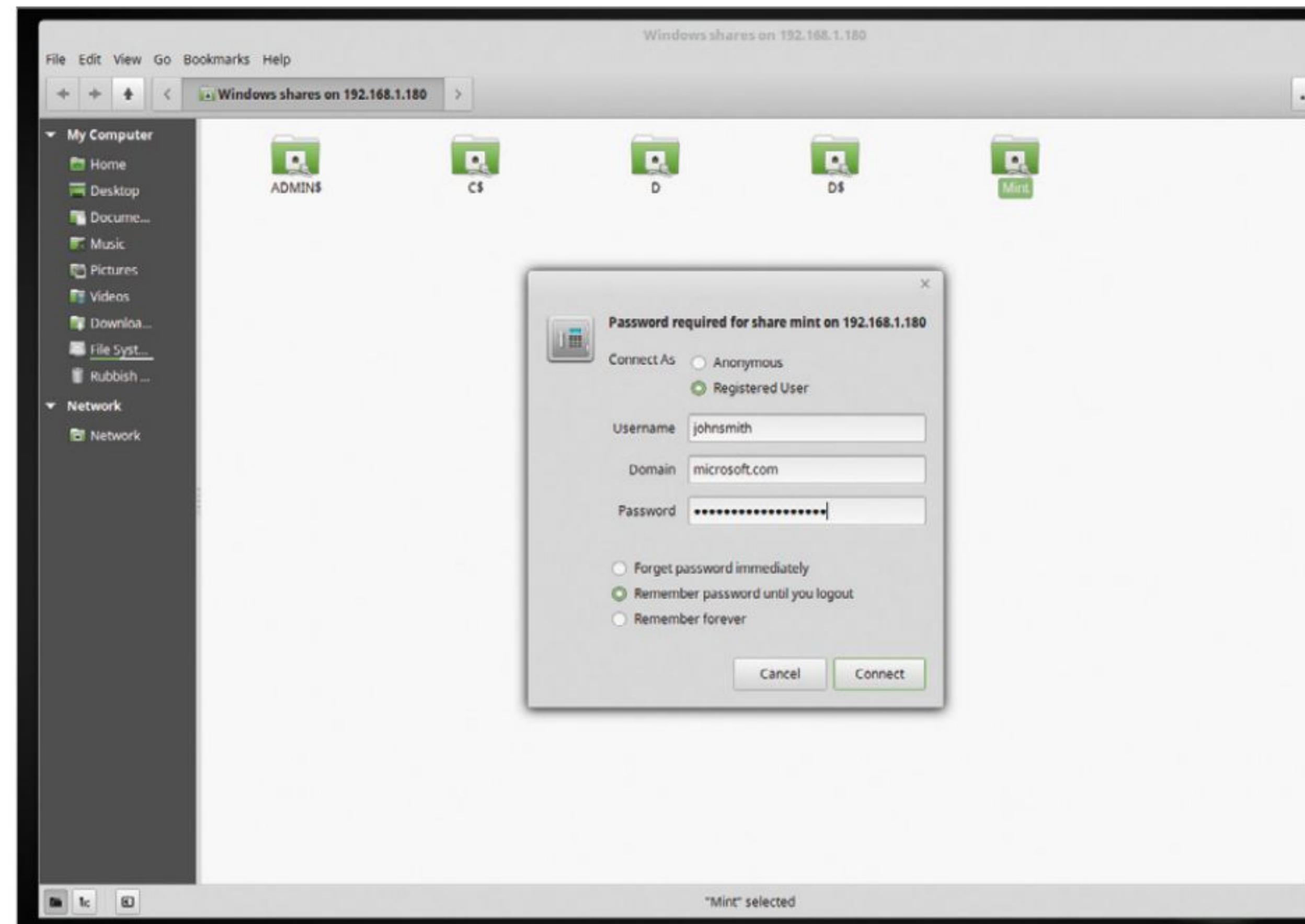


**STEP 5**

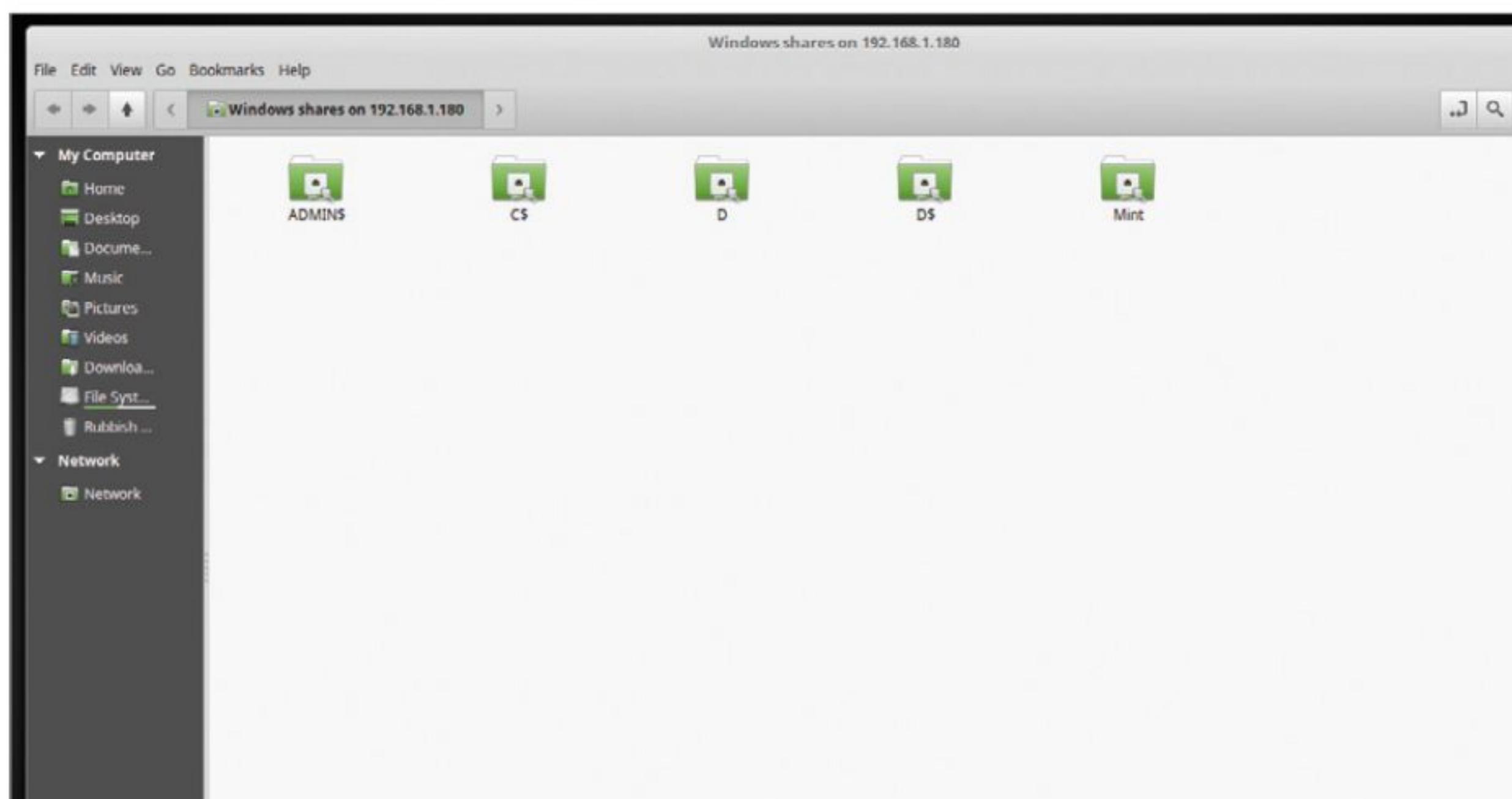
In the User Name section, enter the Windows username and the same for the Password section. If you want, you can also add the name of the Windows share, we called ours Mint, into the Folder section after the slash, our example is /Mint.

**STEP 8**

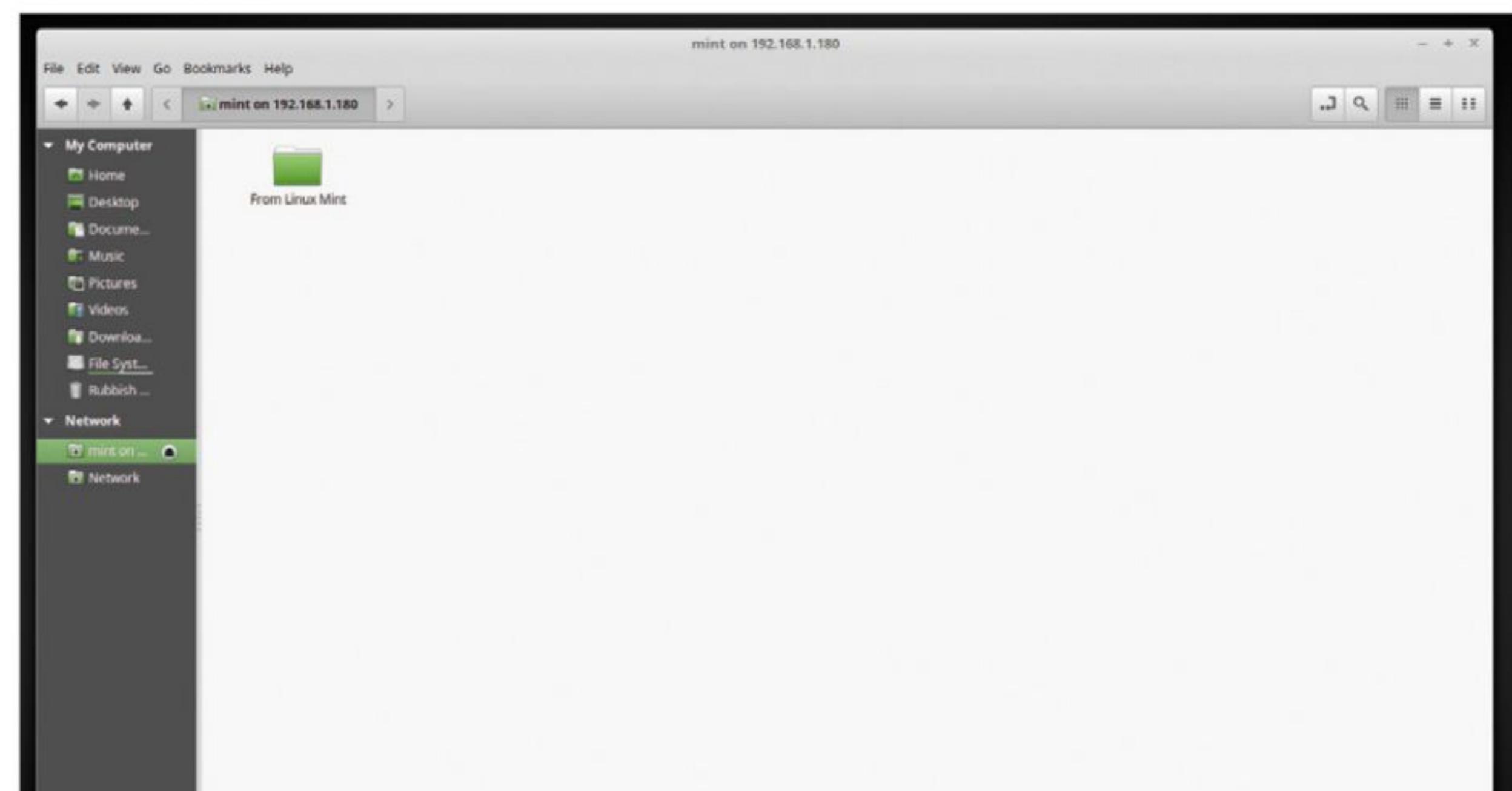
It's also worth noting that with Windows 10, if your login name is something like johnsmith@microsoft.com, then you need to enter johnsmith as the Username, the microsoft.com part in the Domain field, and then the password.

**STEP 6**

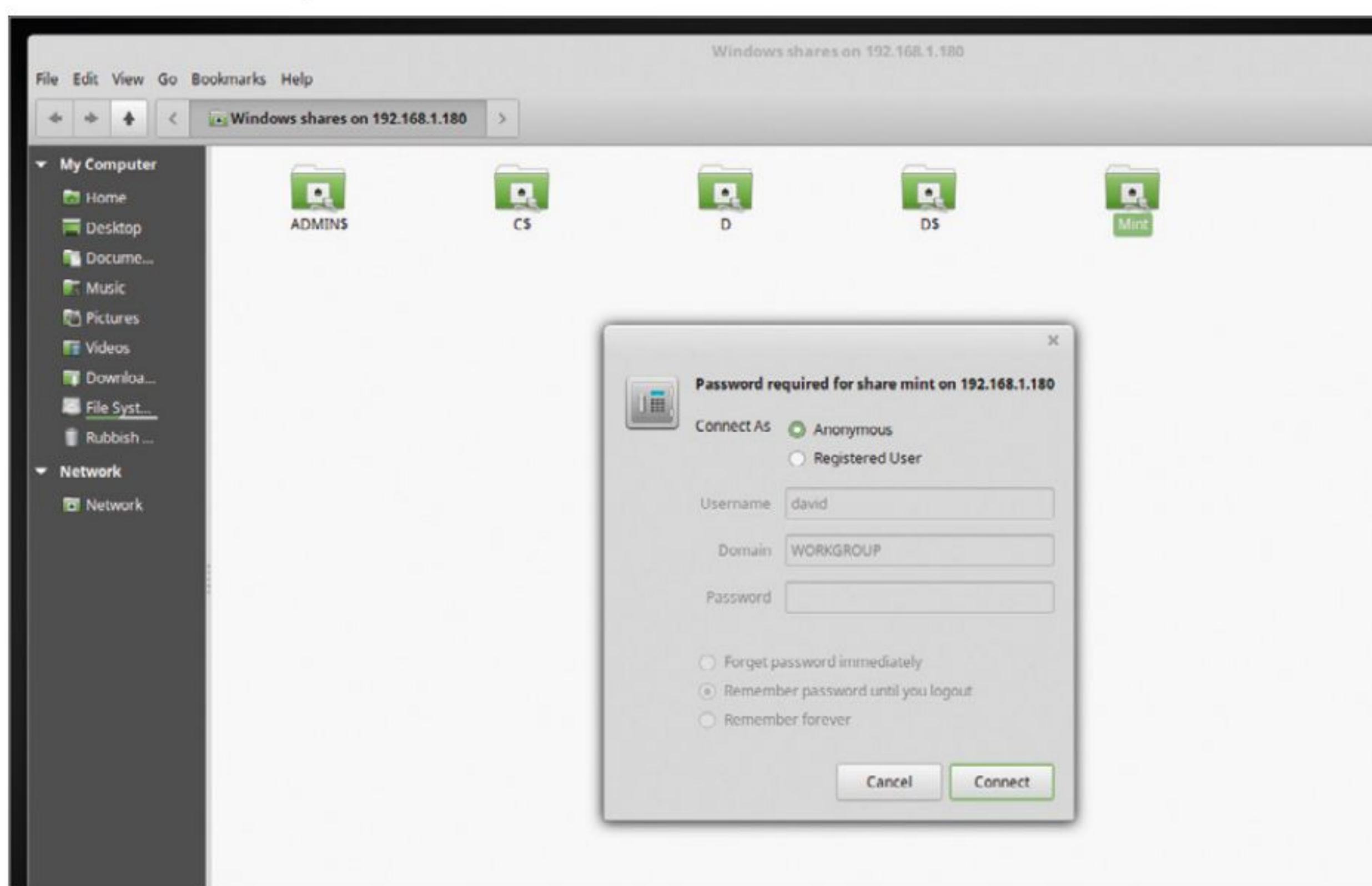
Click the Connect button and Nemo will open up the available shares from the IP address you entered into the Server text box. If you didn't specify an exact location in the Folder section, then you can see all the available shares, if you did specify a shared folder name you're just taken to that folder instead.

**STEP 9**

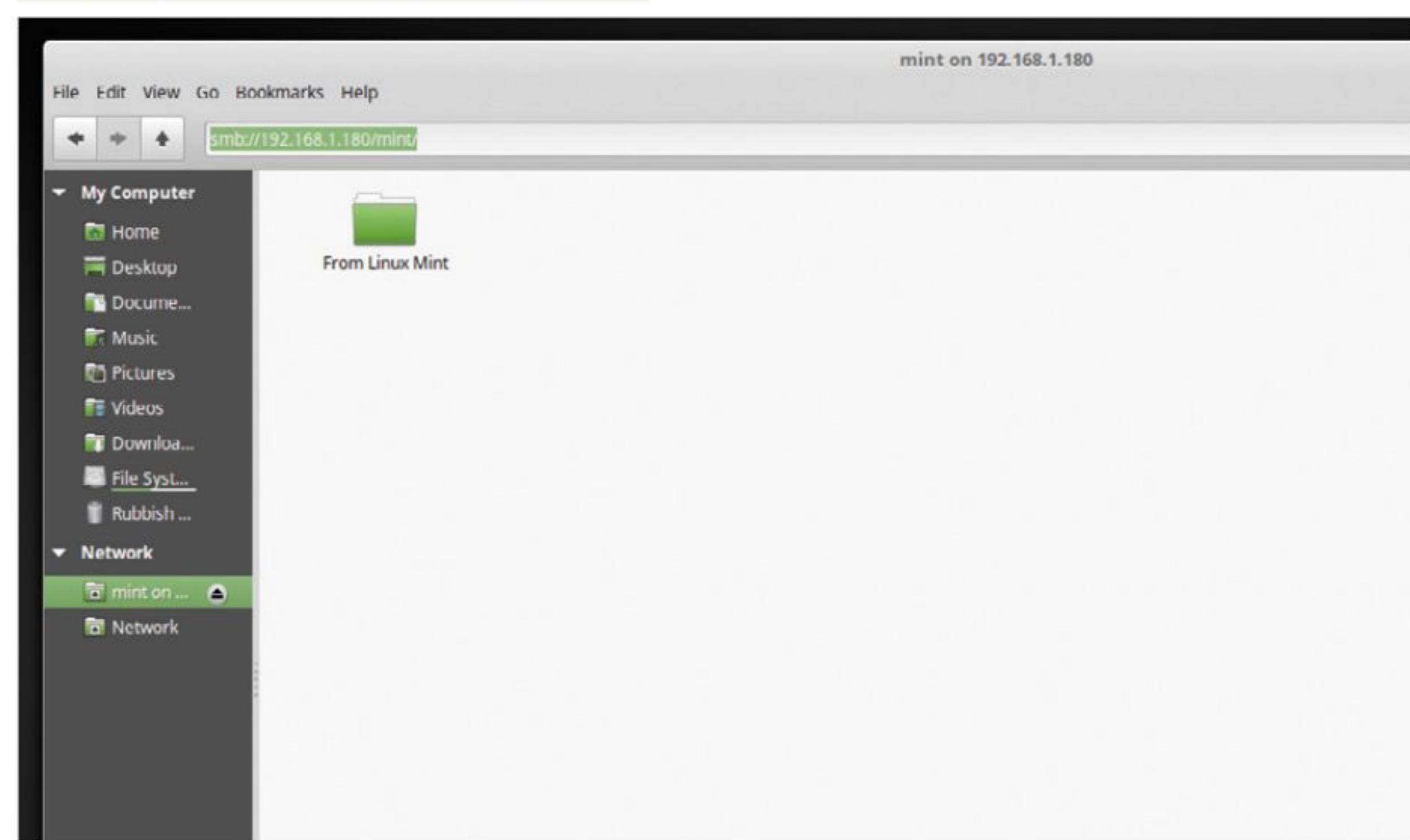
All going well, and don't worry too much if connecting to a Windows share is a little fraught at times, you should be connected to the newly created Windows share via Linux Mint. You can now create or copy files and folders to be accessed by both operating systems.

**STEP 7**

If you're looking at all the available shares, click the newly created folder for Linux Mint; in our case that's the Mint shared folder. You'll probably be asked if you want to connect Anonymously, or as a Registered User. If you want full access, then use the Registered User option and re-enter your Windows username and password.

**STEP 10**

If you want, you can also connect to the Windows share via the aforementioned smb location entry. In Nemo, click View > Toggle Location Entry. In the address bar at the top of Nemo enter: smb://IP.address.of.Windows/Share, where IP.address.of.Windows is the Windows PC IP address and Share is the name of the Windows share. For example: smb://192.168.1.180/mint.





Adding to the Panel

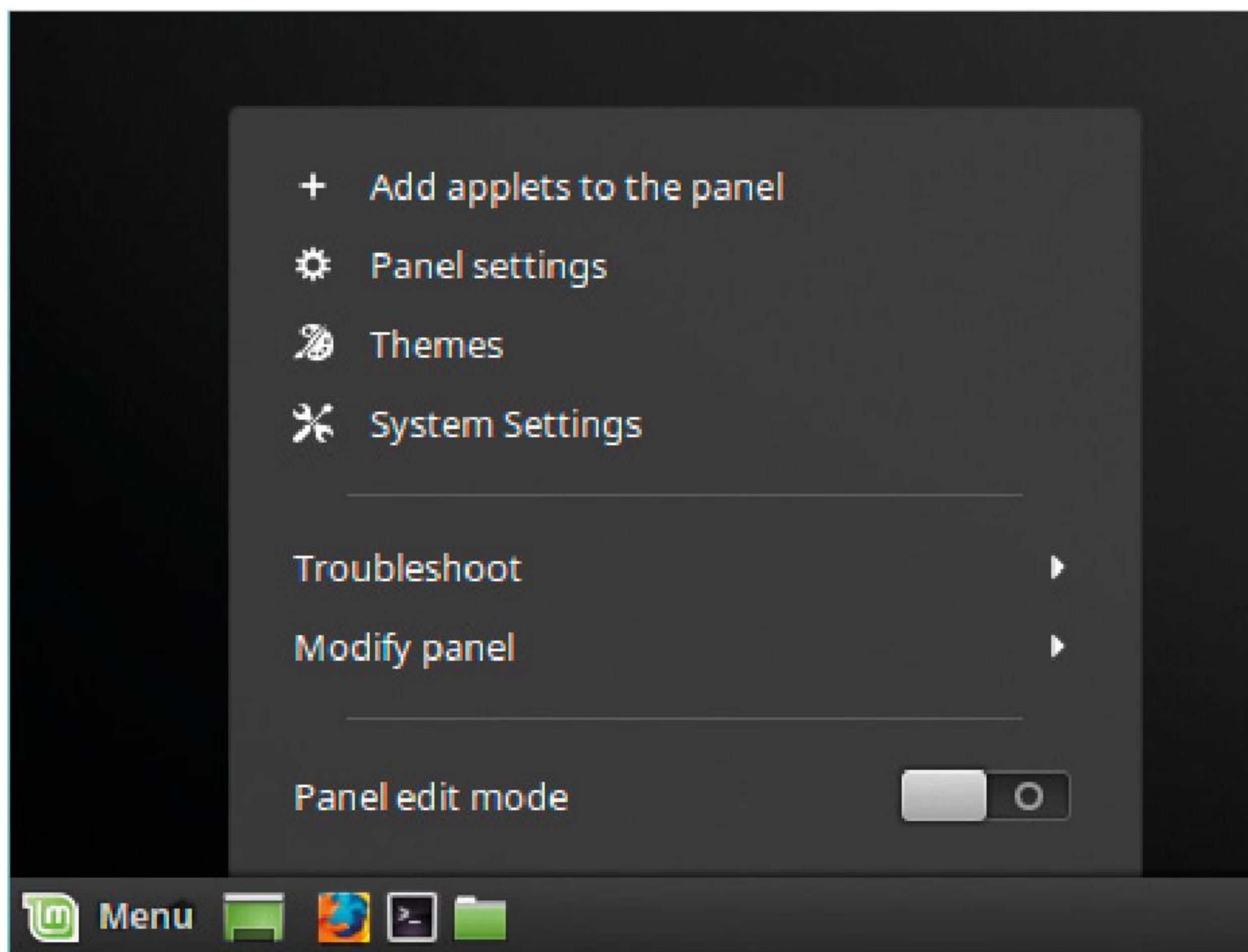
The Linux Mint Panel is a remarkably flexible element of the desktop environment. Not only is it highly customisable but you can place it at different points around the desktop, hide it and even add more functionality to it.

PANEL POWER

There's a lot we can do to manipulate the Linux Mint Cinnamon Panel. Not only are we able to configure its behaviour but we can also install Applets to it and change the overall theme.

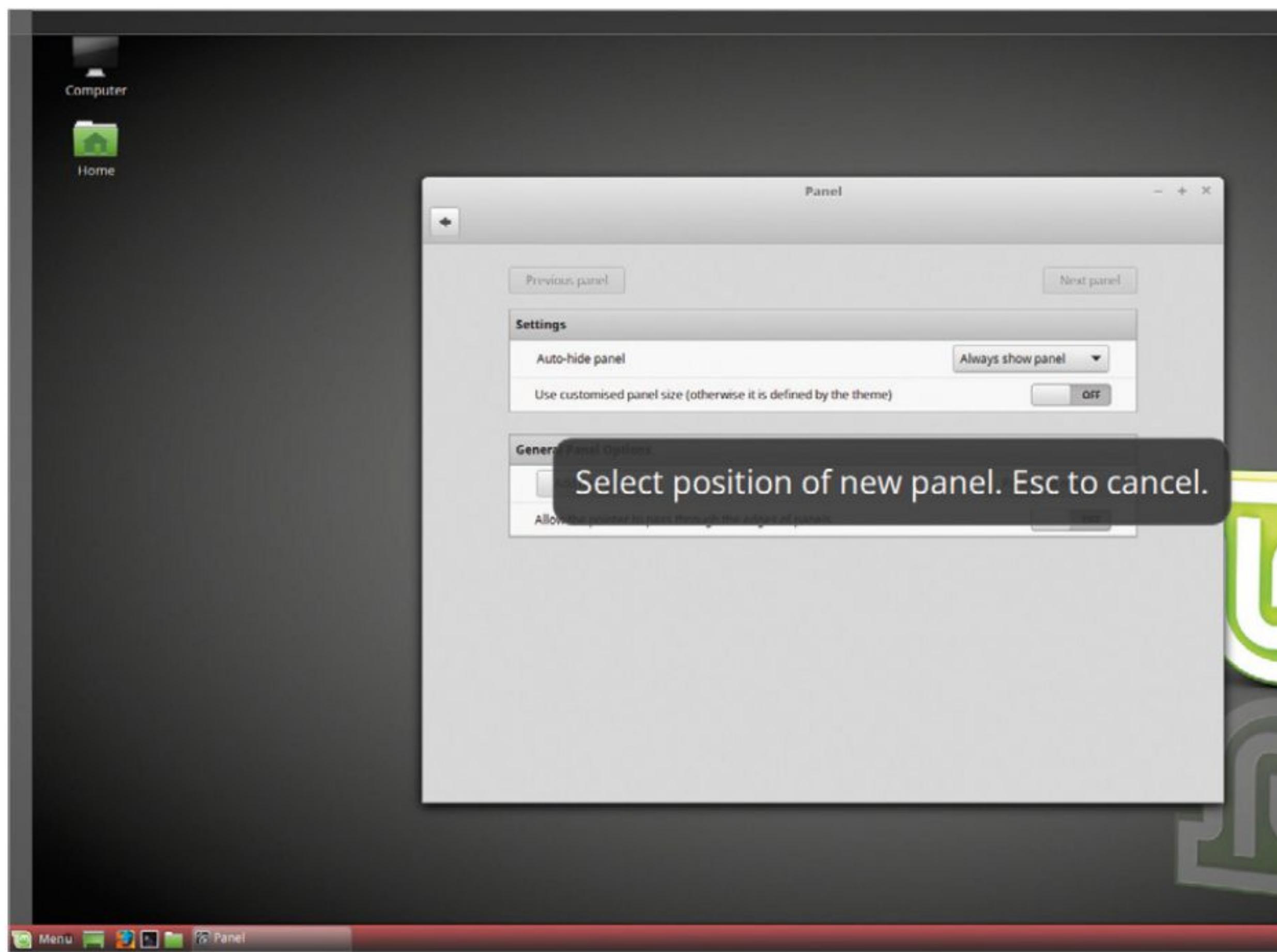
STEP 1

To begin with, right-click the Panel. You'll see various options in the menu, some of which you've already had a brief look at in the Cinnamon Panel Introduction section of this book. For now though, click on the Panel Settings option.



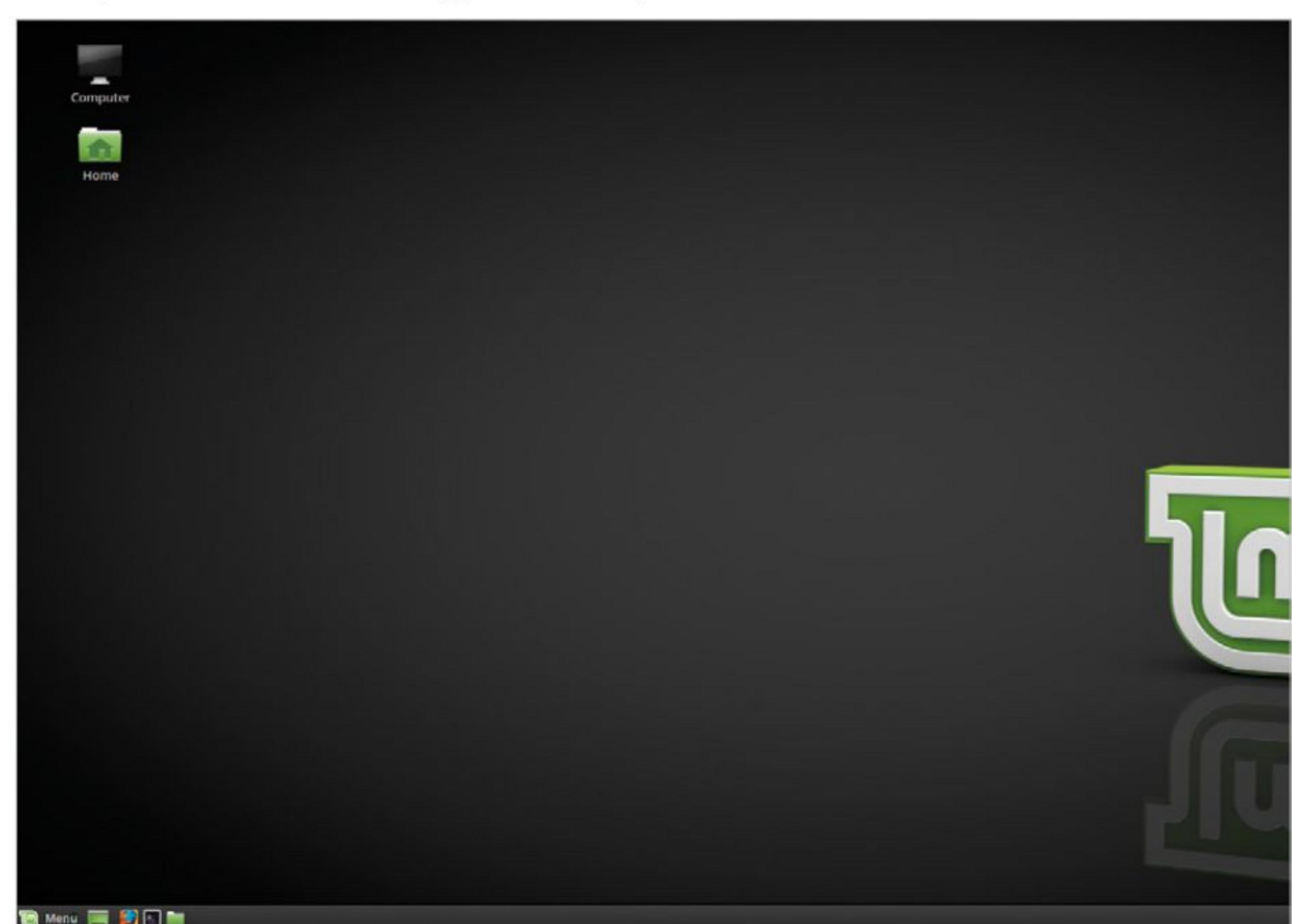
STEP 2

The Panel Setting option doesn't appear to do much at first glance. However, with it you're able to Auto-Hide the Panel, Add a New Panel and enable the Panel Edit Mode. For example, click on the Add New Panel button. This will allow you to set the position of the new Panel to the sides of the desktop.



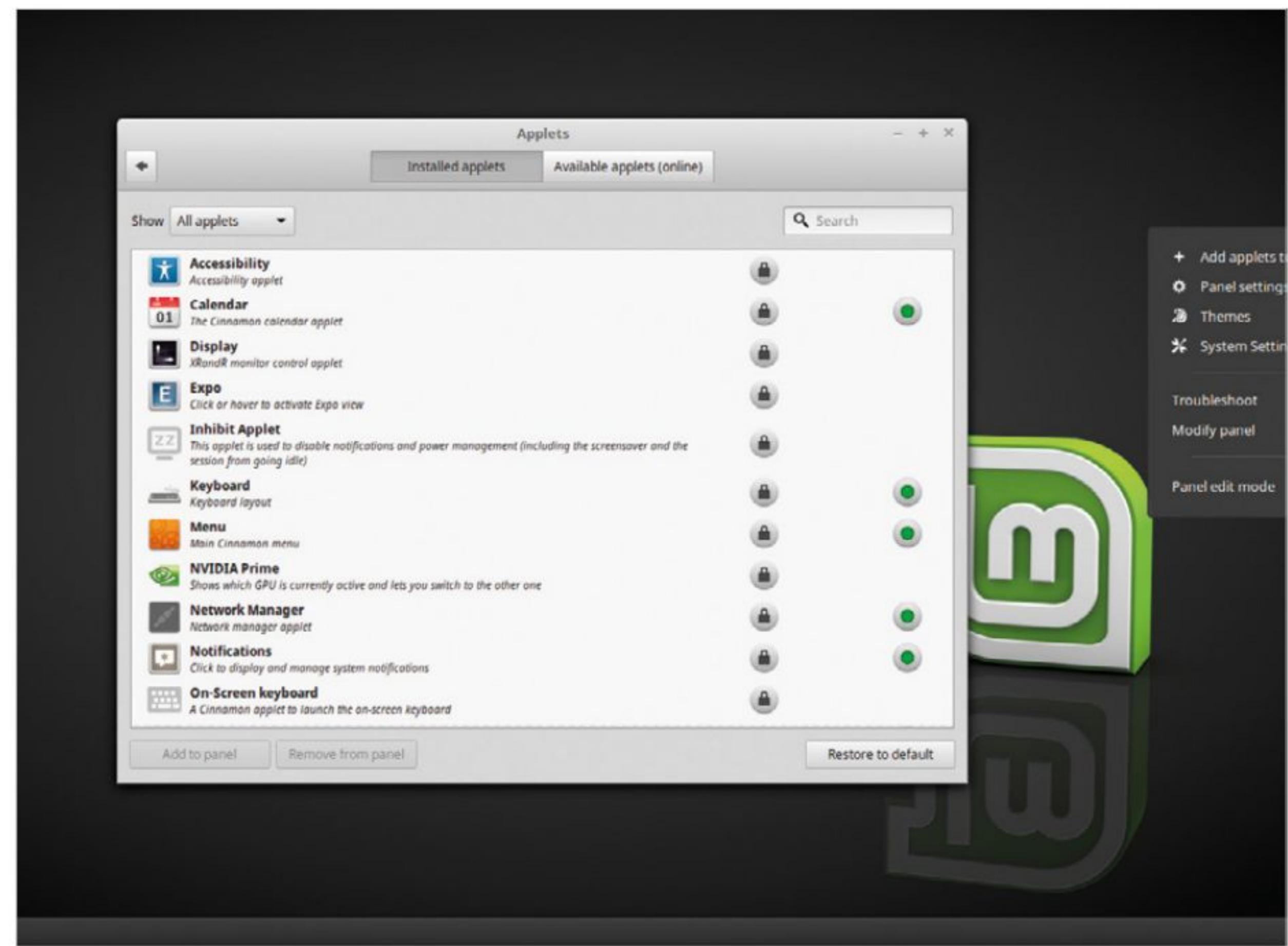
STEP 3

For this example, we have put the new Panel to the right of the desktop. Move the mouse pointer to the highlighted right-hand area and left-click to place the new Panel. Close the Panel Setting console. This is the Panel you can edit and use now, so it's not affecting the main, bottom Panel.



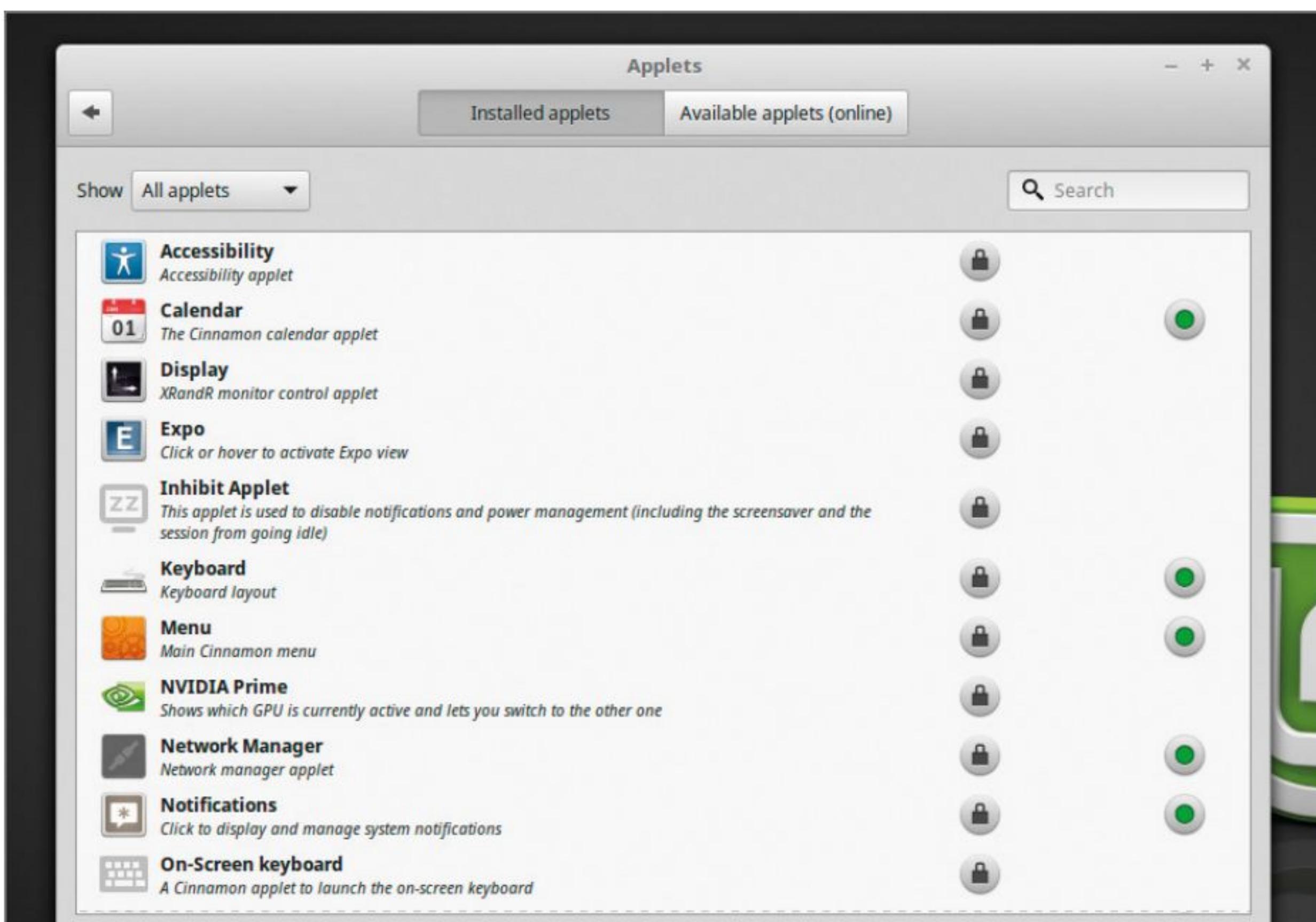
STEP 4

Right-click the new, right-hand Panel and choose the Add Applets to the Panel option. Applets are much like Desklets, in fact they're pretty much the same, only the location is different. The Applet console window that's just opened will reveal the currently installed Applets.

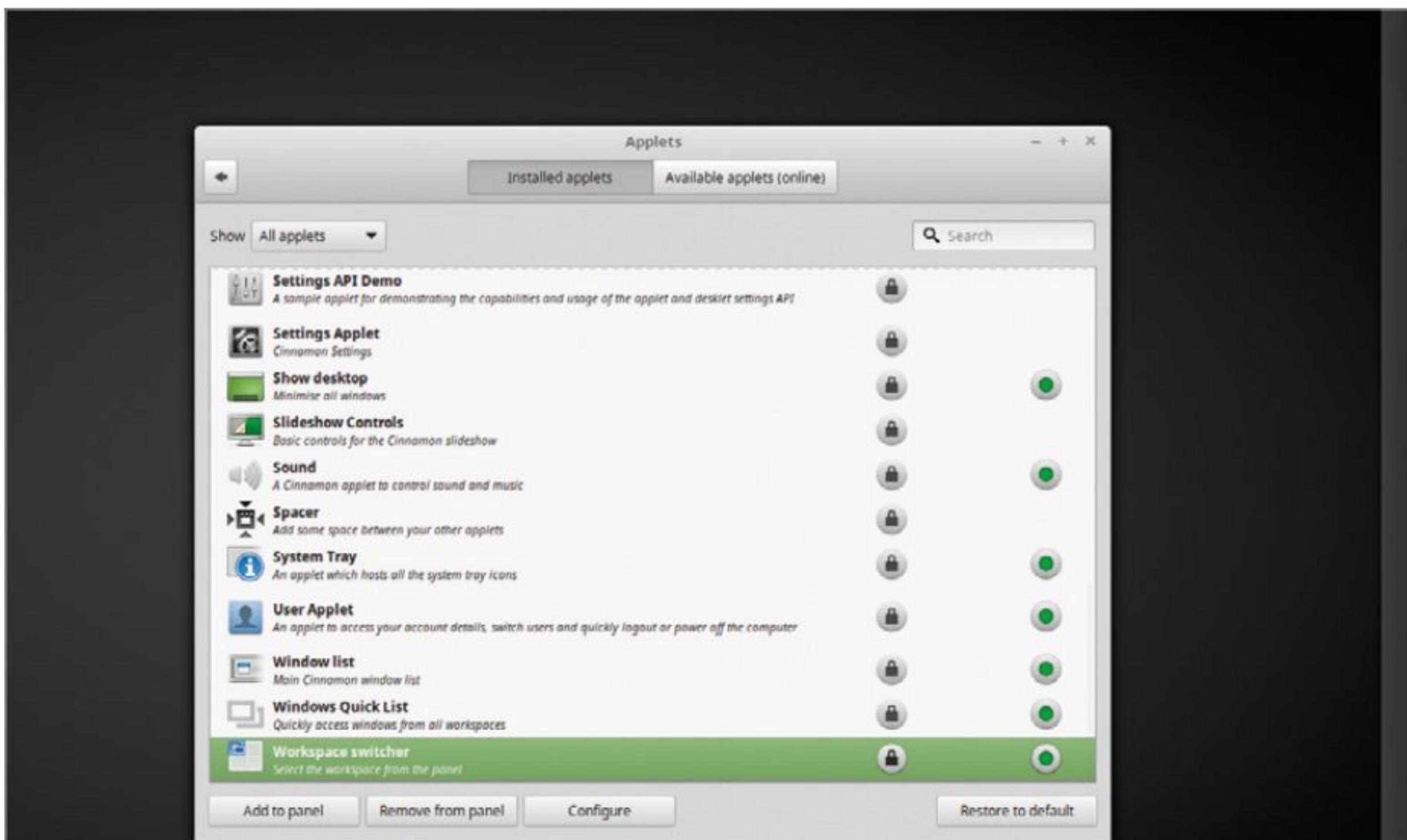


**STEP 5**

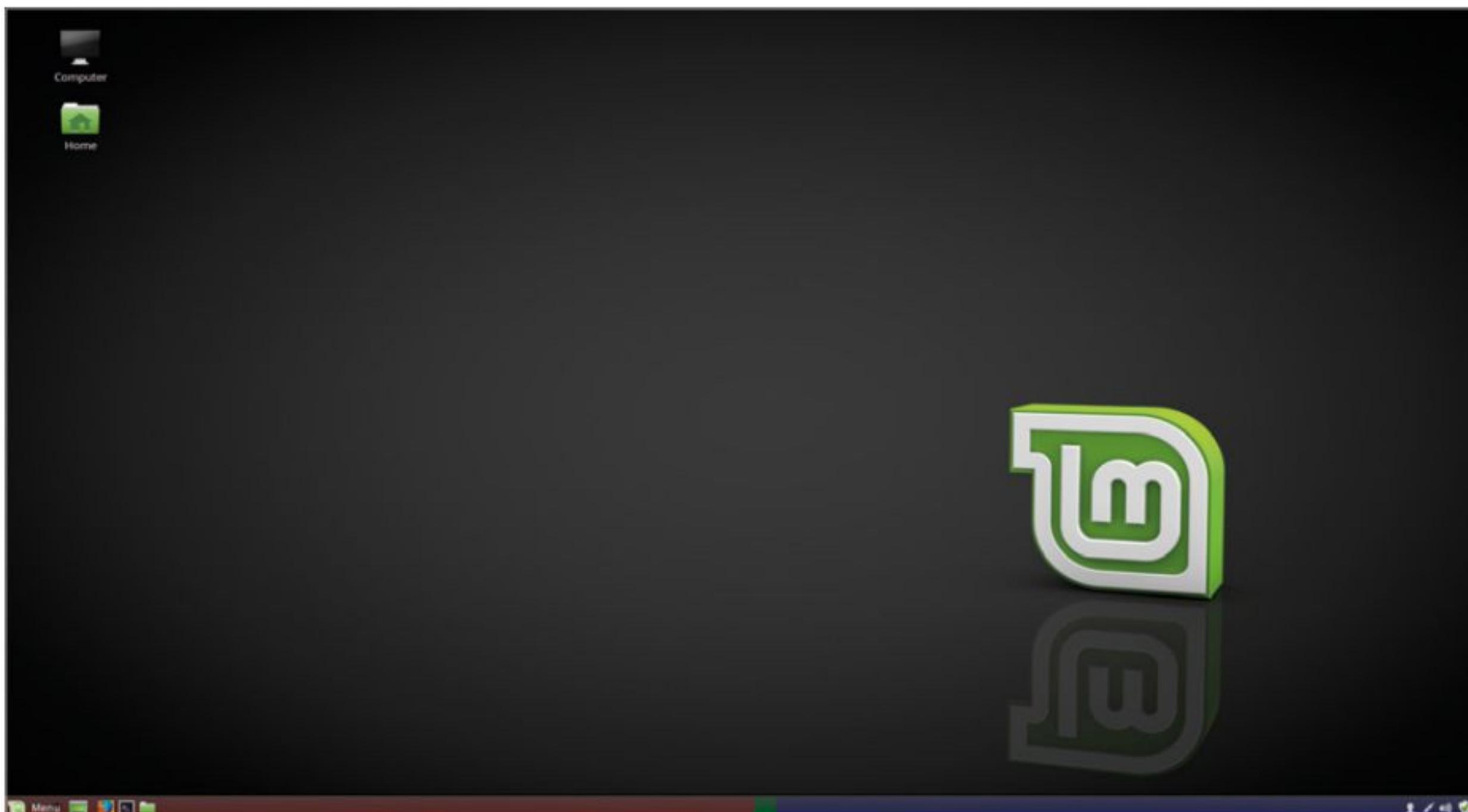
Although an Applet may be installed unless it has a green button next to it, it's not currently active on any of the available Panels. You can see that the Applets for Calendar, Keyboard, Menu, Network, Notifications, etc. are all active along the bottom Panel at present.

**STEP 6**

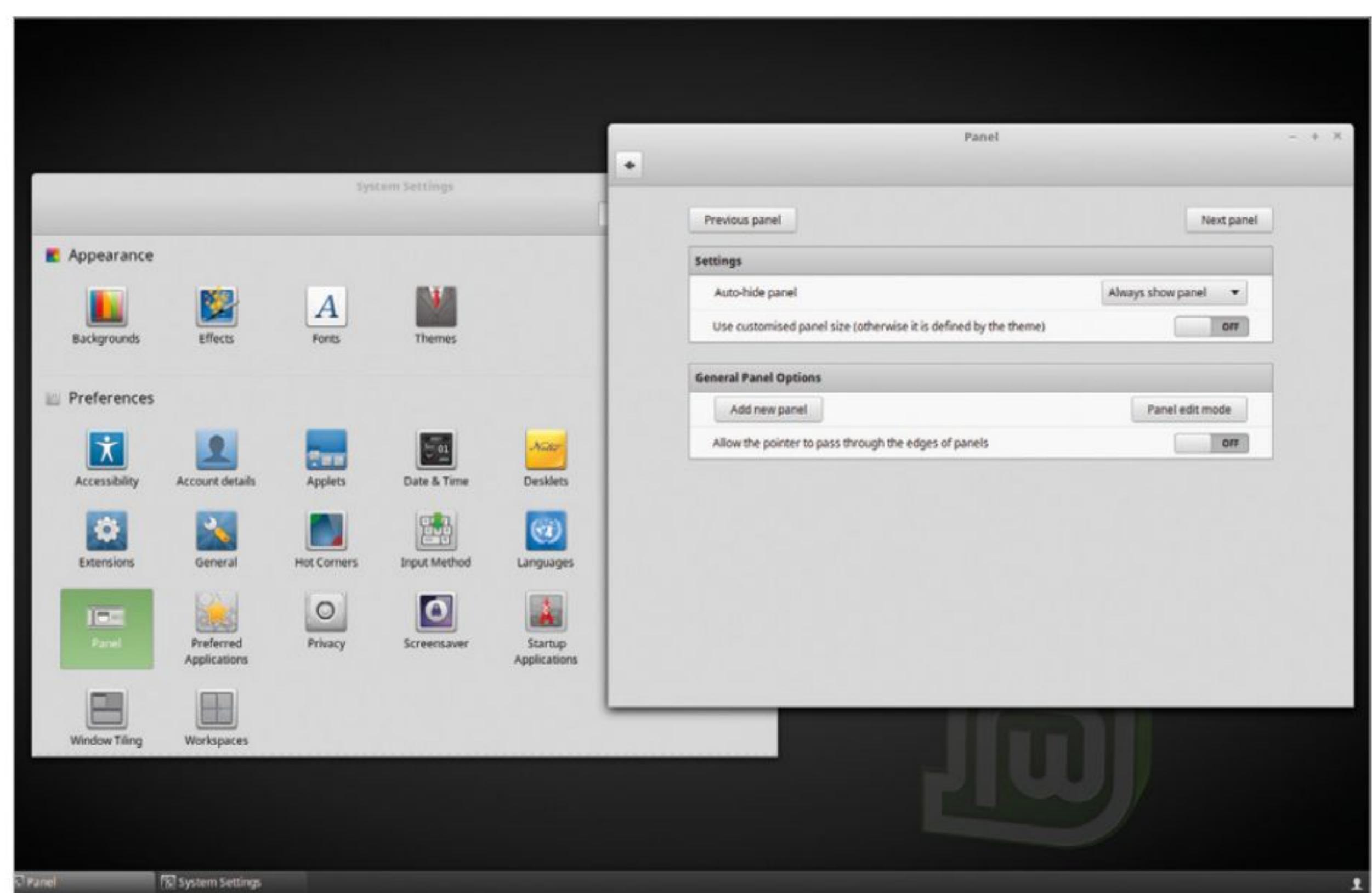
To add an Applet scroll down to the bottom of the list of Installed Applets to the Workspace Switcher. Single left-click to highlight it, then click the Add to Panel button. You can see that the Workspace Switcher has been added to the bottom of the new Panel.

**STEP 7**

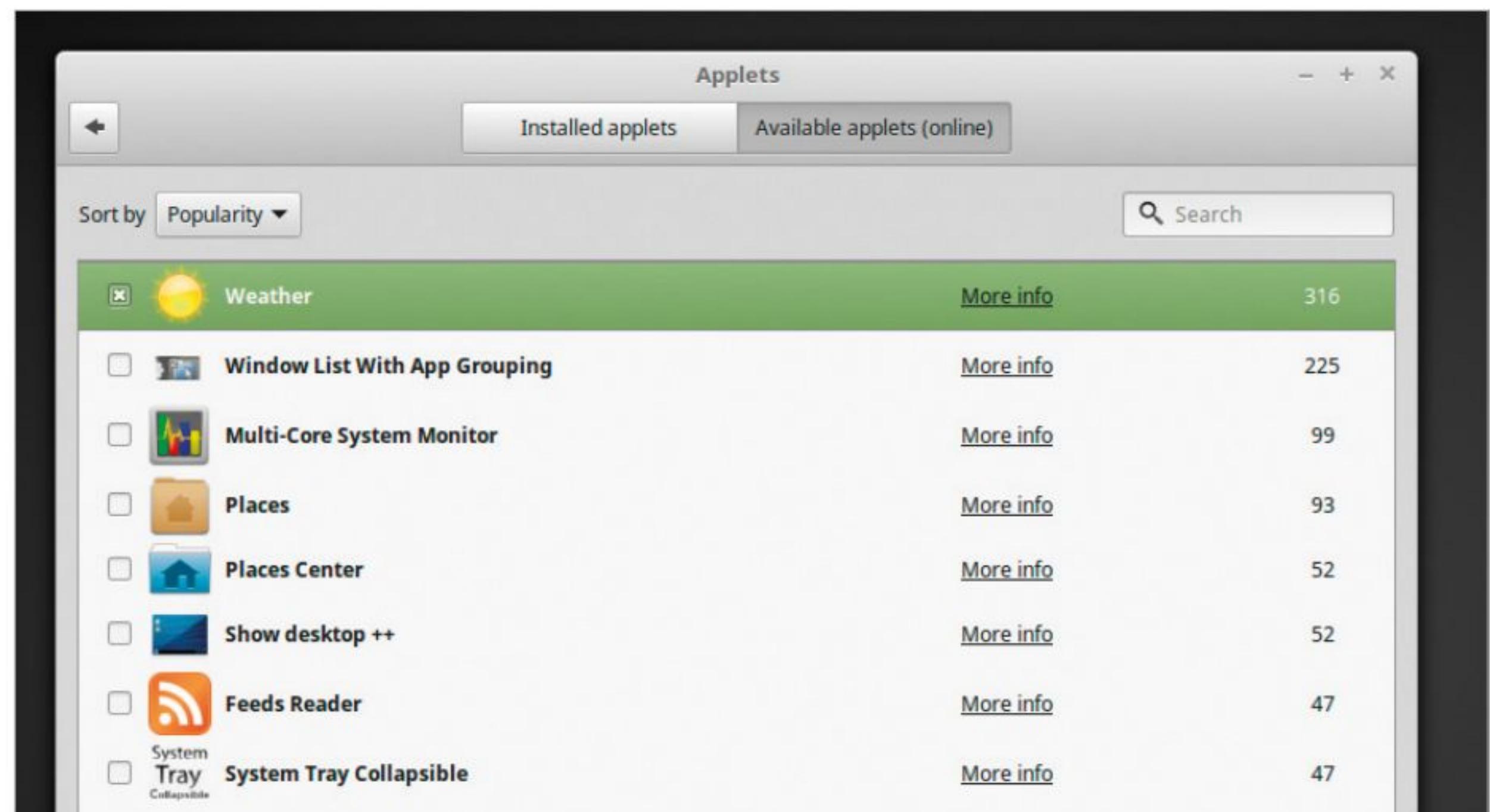
Close the Applets console window and right-click the new Panel again. This time select Panel Edit Mode, click to move the slider to enable it, from the menu. This mode will let you modify the Panel and its contents. For now, click and hold the Workspace Switcher Applet and drag it to the top of the new right-hand Panel.

**STEP 8**

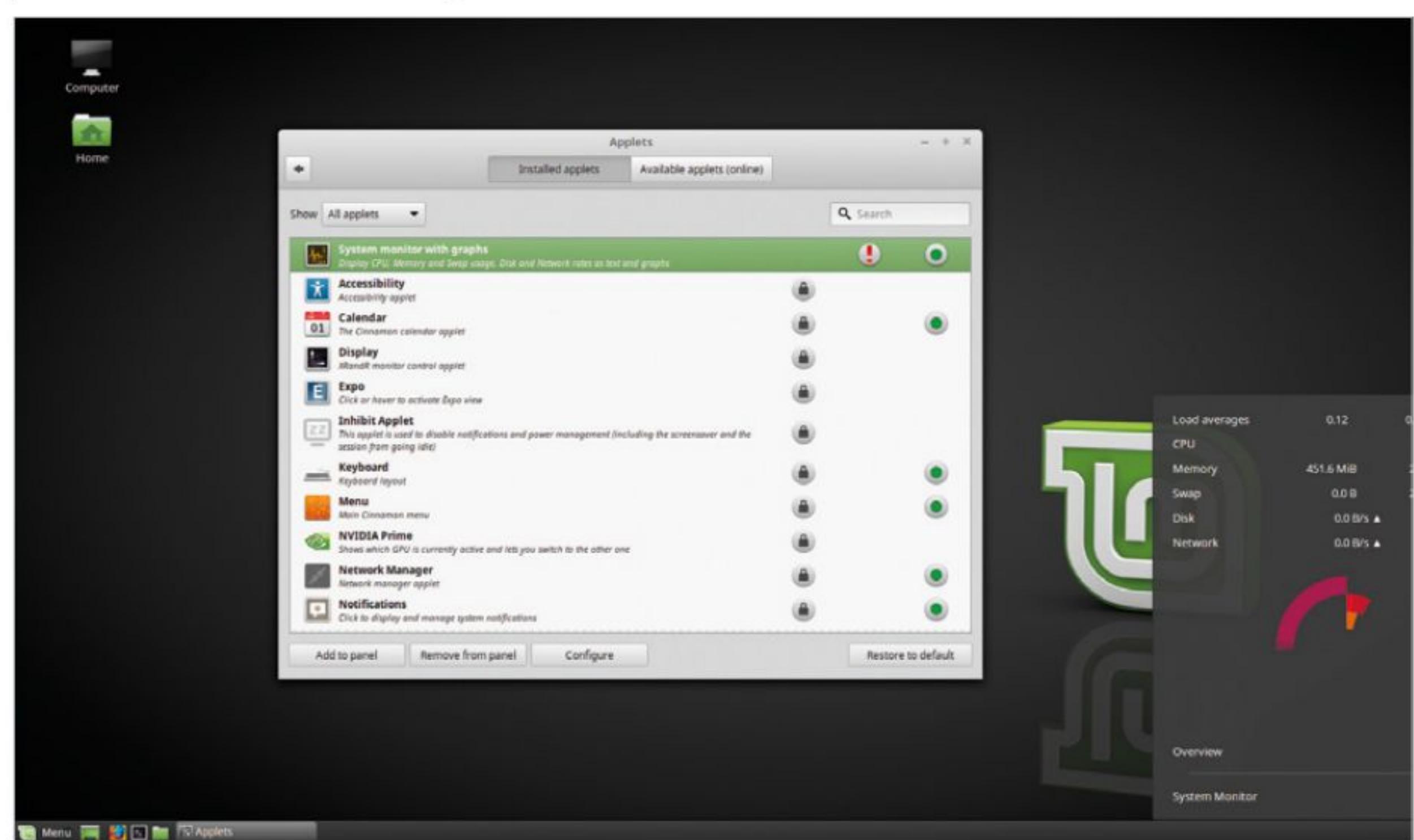
You may notice that you can't right-click the Panel again to exit Panel Edit Mode; don't worry, there's a fix for this. Right-click the desktop and choose Add Desklets, click the left-facing arrow in the top left of the Desklet console window, from the main System Settings console, choose Panel and click to disable Panel Edit Mode.

**STEP 9**

Re-enter the Panel Applets console window again and click the Available Applets (Online) tab. In here you can find at least a couple of hundred different Applets to add. Highlight one, click the Install or Update Selected Items button, then drop back to Installed Applets to add it to the Panel. Some Applets are designed for Horizontal or Vertical Panels.

**STEP 10**

Most Applets work from the moment you add them to the Panel, others sometimes require a little extra help. More often than not, the new Applet will notify you of any additions or problems with the current setup when you add them. It's just a case of following the instructions.



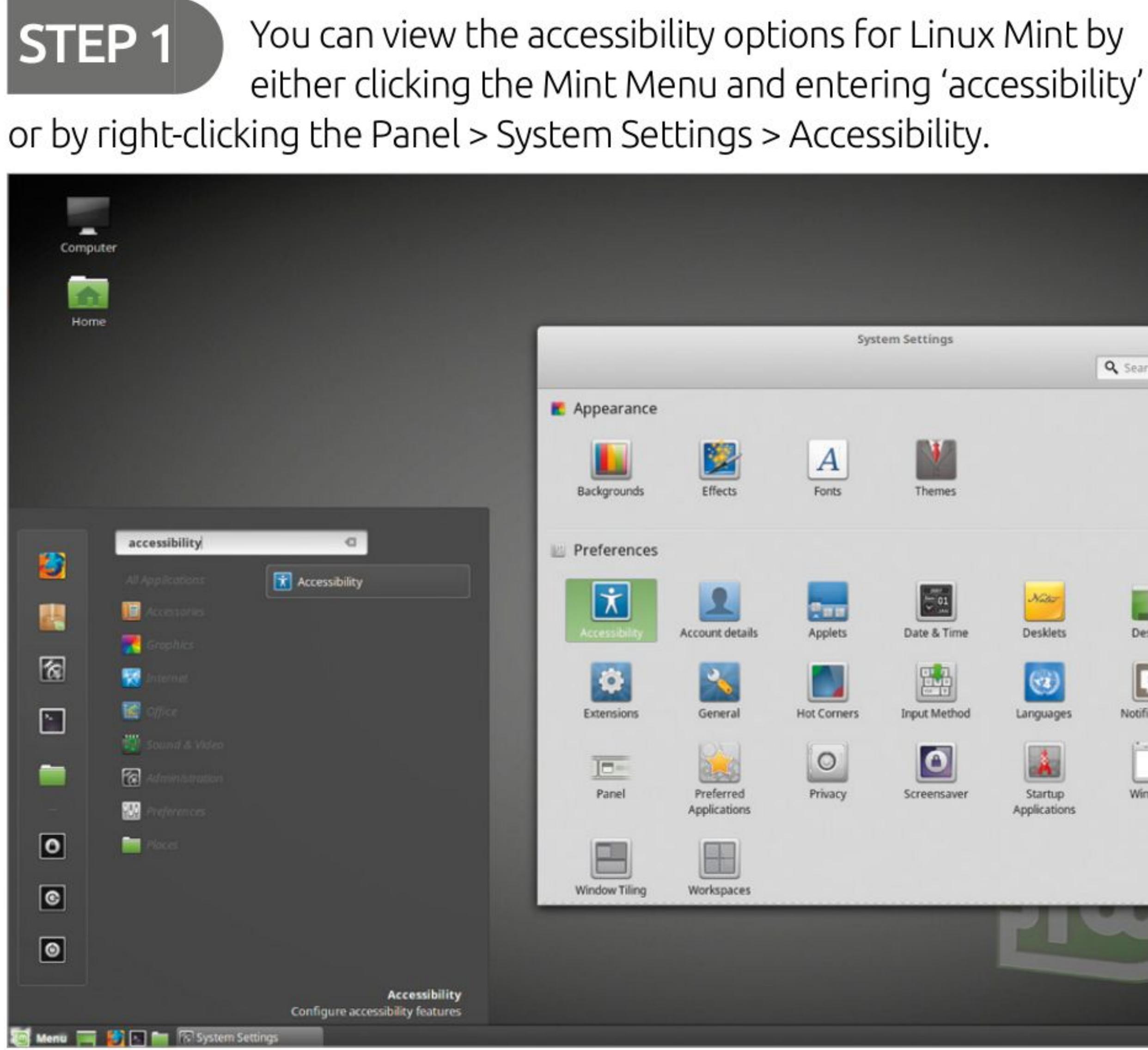


Accessibility Options in Linux Mint

By default Linux is an accessible operating system that's carefully developed so that a user, regardless of any disability, language, age, or use of another keyboard layout, can easily access the system without being left out.

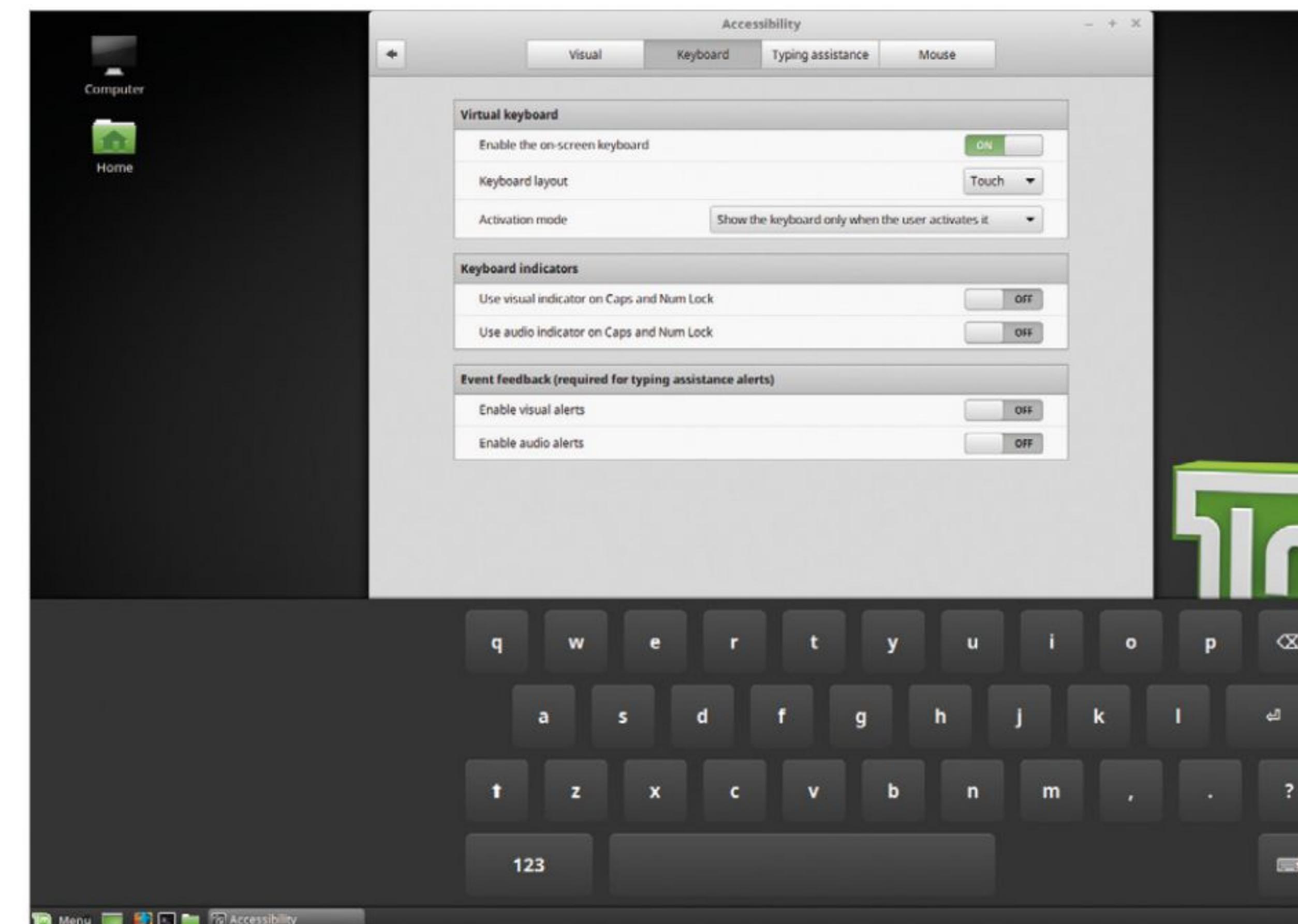
UNIVERSAL ACCESS

There are a number of aids built into Mint to help those who find it difficult to read or interact with the operating system. They cover most accessibility needs and they're always improved with each new release.

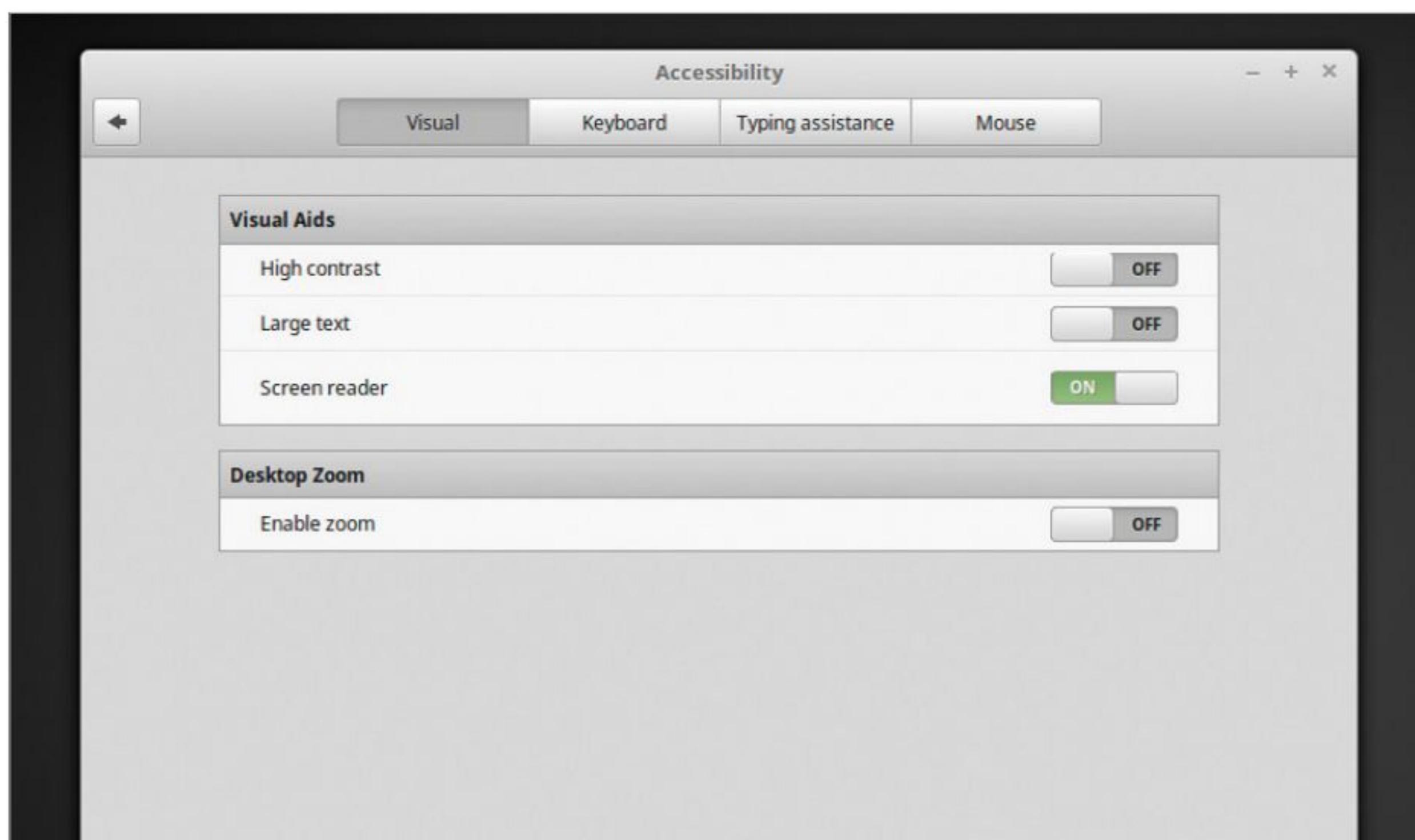


STEP 1 You can view the accessibility options for Linux Mint by either clicking the Mint Menu and entering 'accessibility' or by right-clicking the Panel > System Settings > Accessibility.

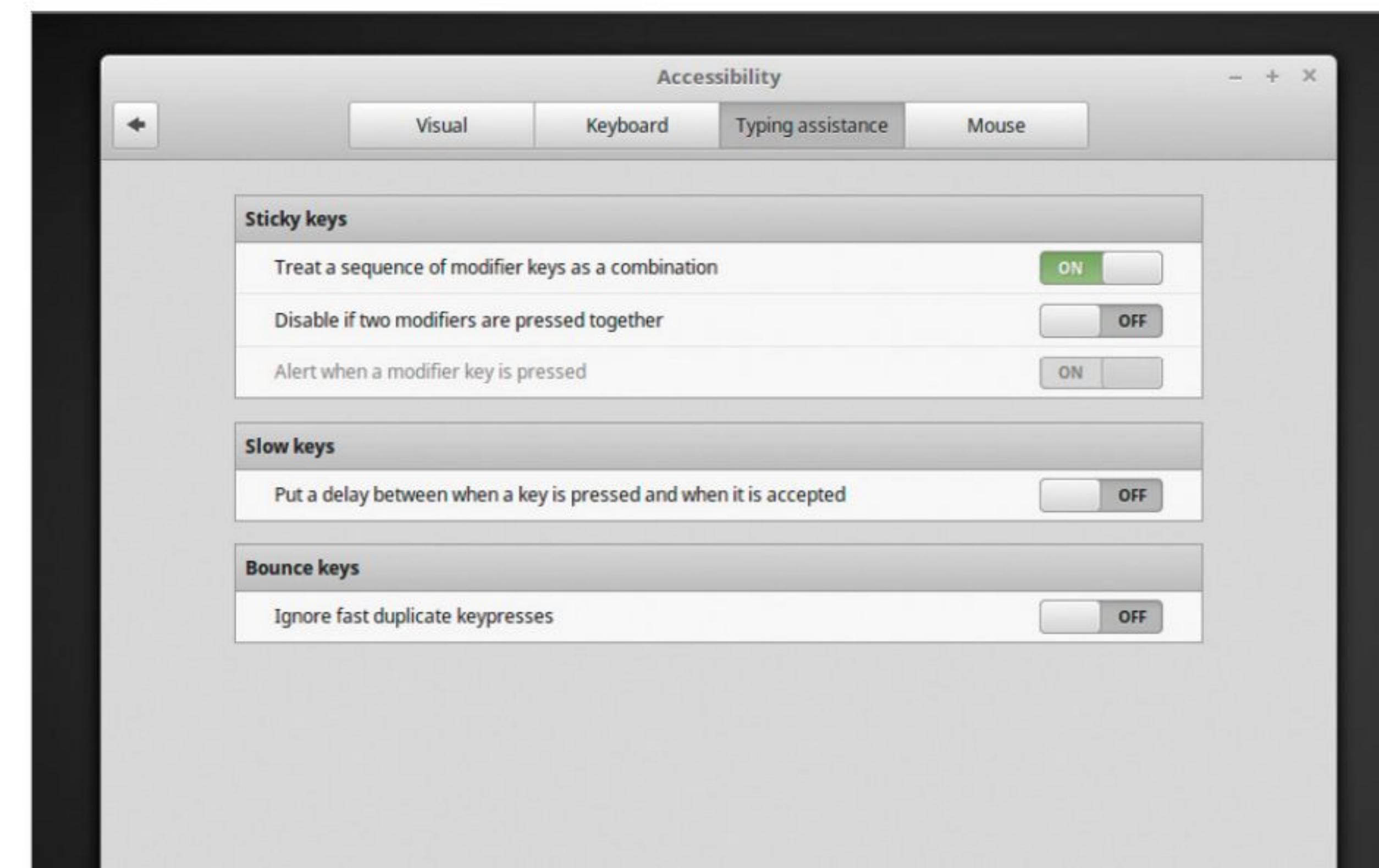
STEP 3 The Keyboard tab enables you to have an on-screen keyboard, as well as activating numerous indicators, both audio and visual, to assist you when typing. You can also enable visual and audio alerts for the system from within here.



STEP 2 There are four tabs available within the Accessibility console window: Visual, Keyboard, Typing Assistance and Mouse. Starting with Visual, you can enable High Contrast views, Large Text, and the Screen Reader (who will read everything back to you). You can also Enable Zoom, to enlarge sections of the desktop.

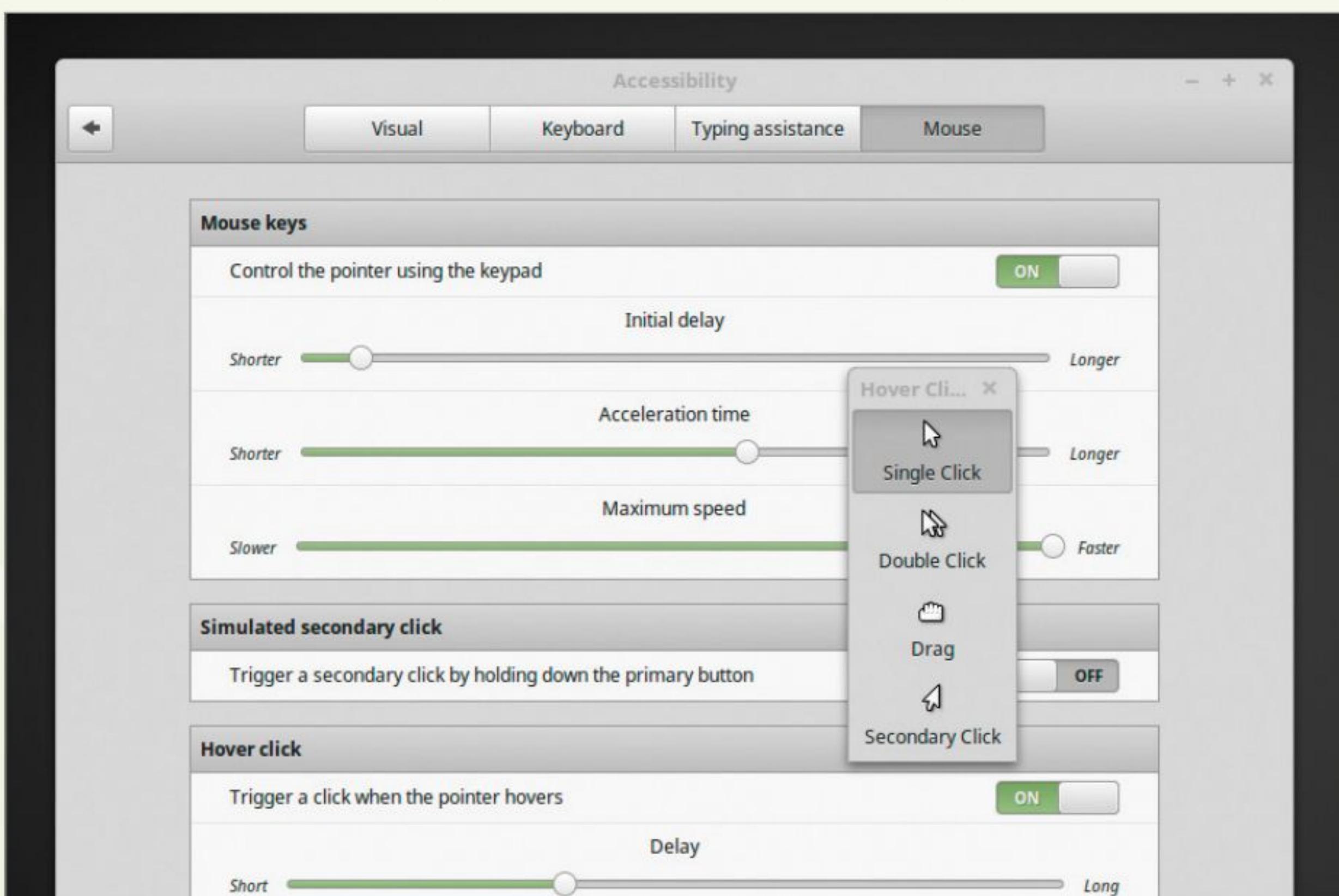


STEP 4 The Typing Assistance tab goes a step further to aid you when using a keyboard. It allows you to enable Sticky, Slow and Bounce Keys, with further options available for each when you enable each feature.

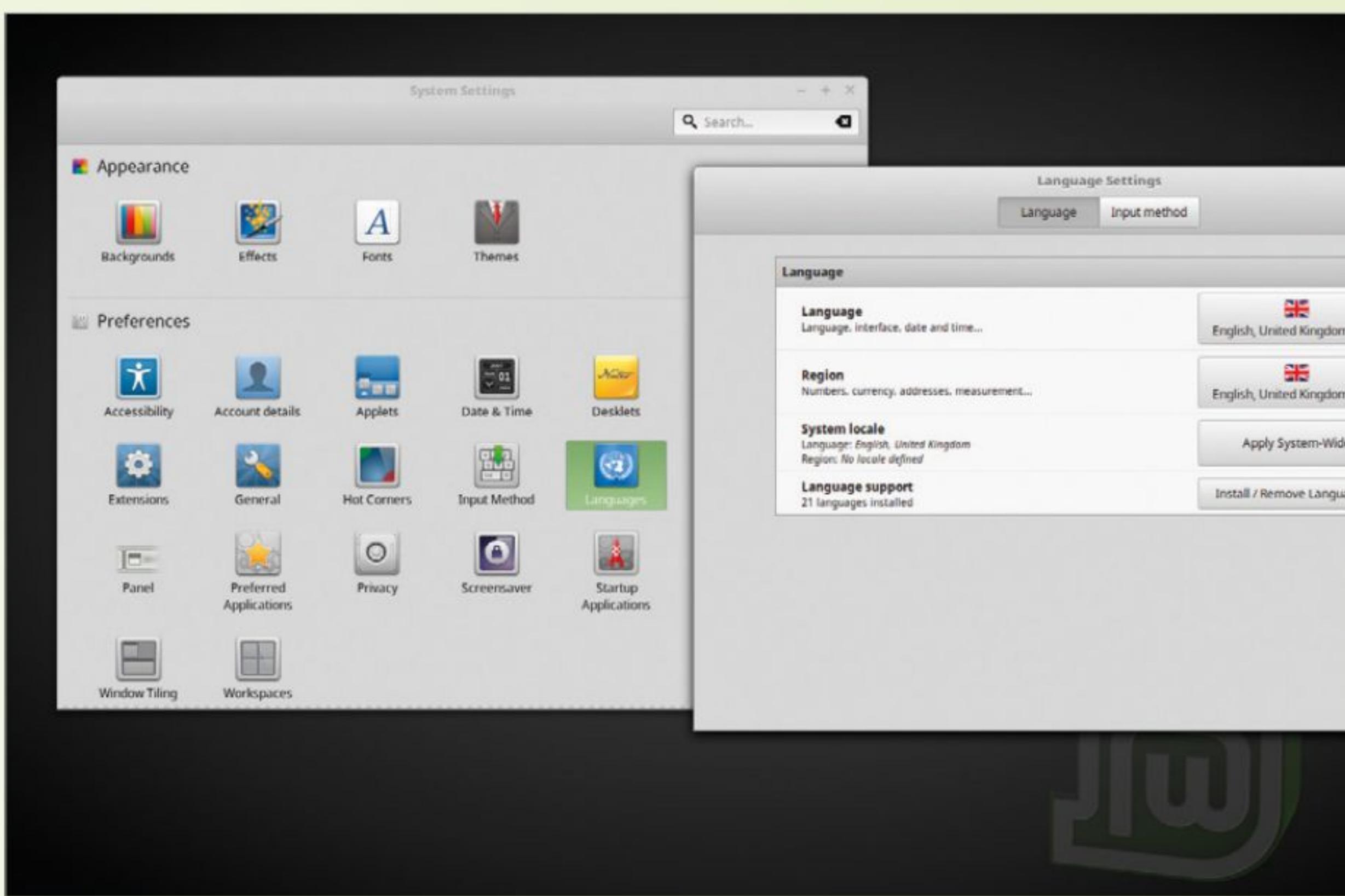


**STEP 5**

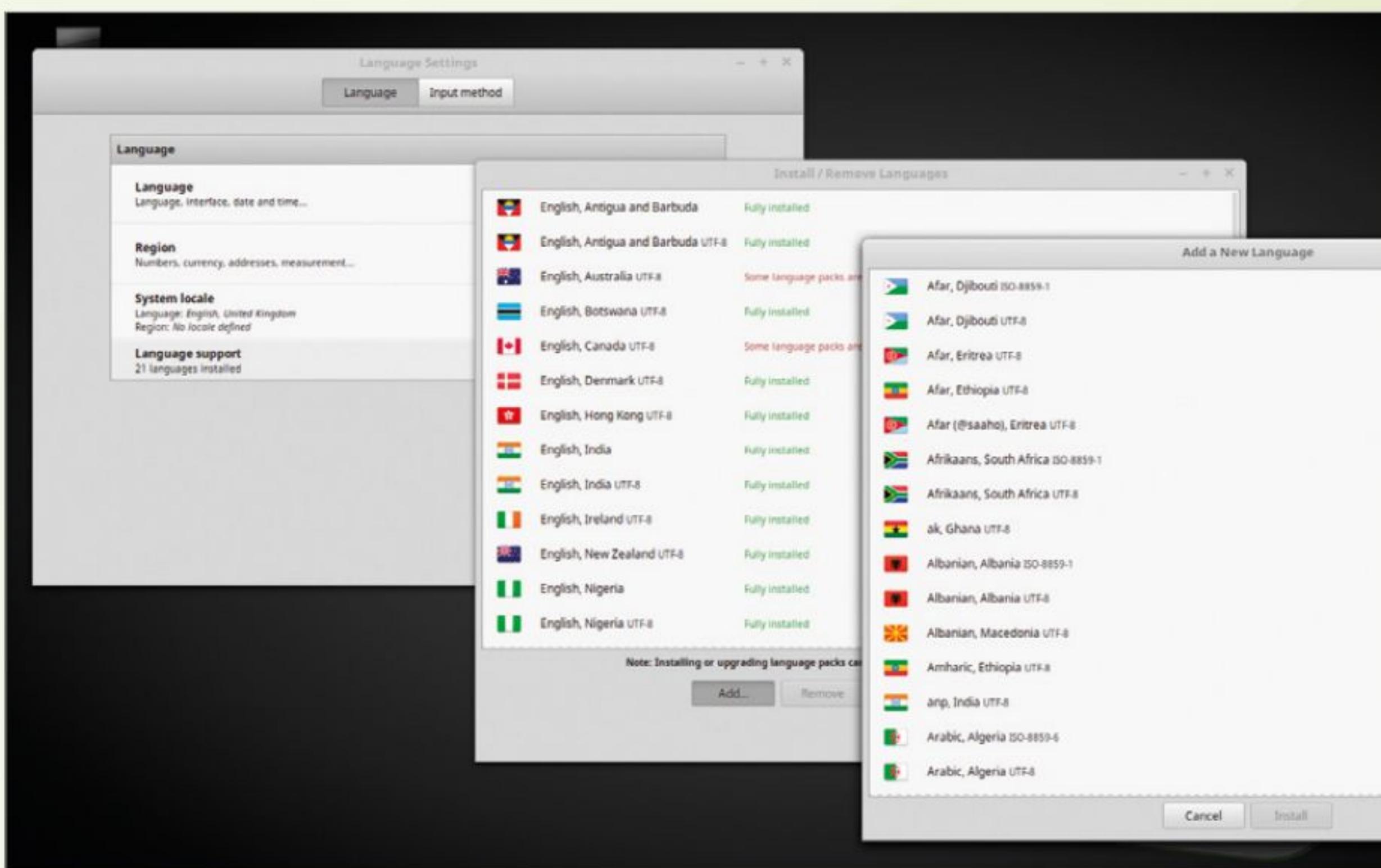
The Mouse tab will let you control the mouse pointer using the Keypad, allowing you to further configure and tweak its sensitivity. You can also simulate a secondary mouse click, or enable Hover Click, whereby it triggers a click when the mouse hovers over an icon or menu options for a customised length of time.

**STEP 6**

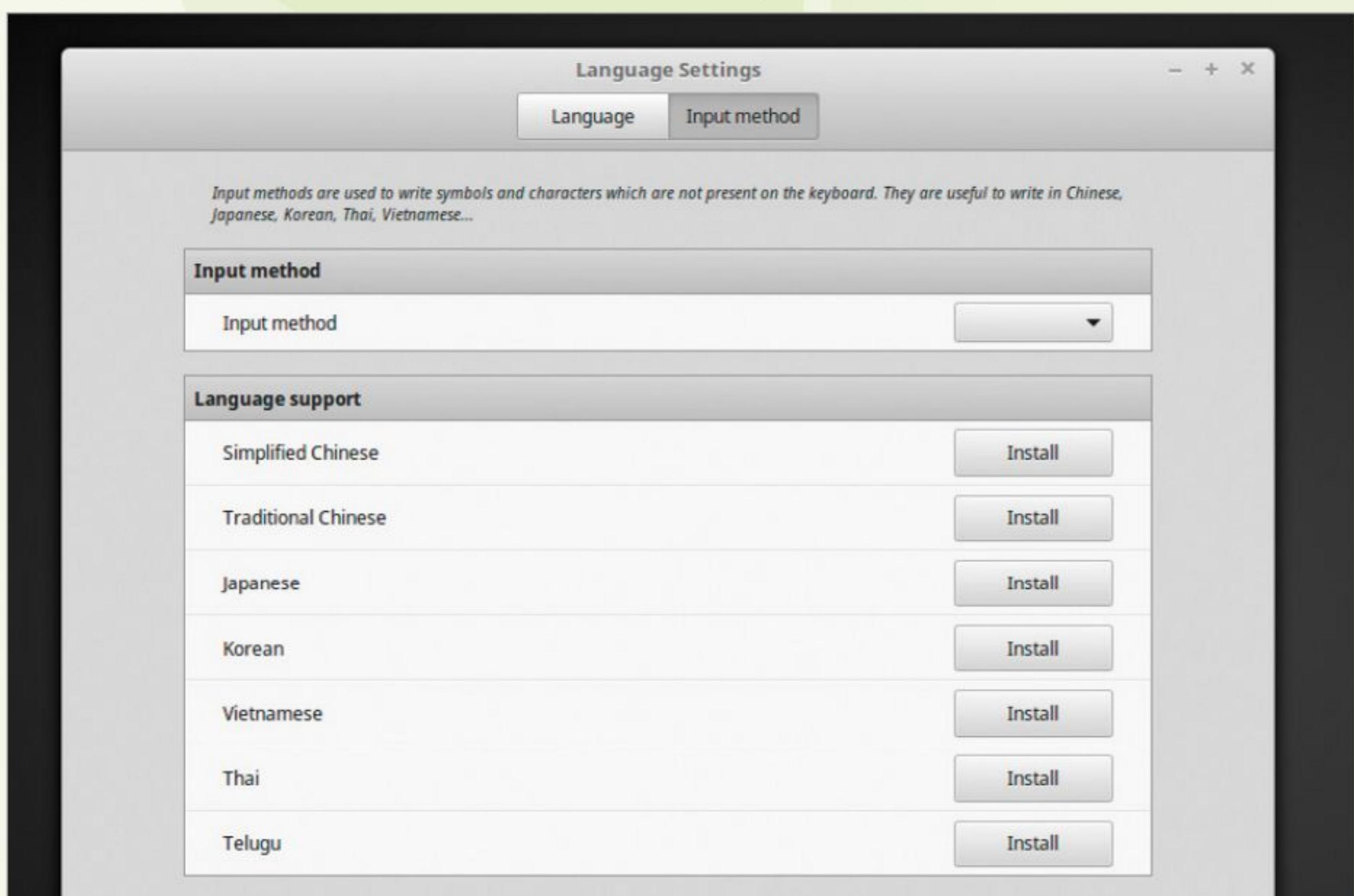
If you click on the left-facing arrow in the top left corner of the Accessibility console window, you are taken back to the System Settings console. From here, click on the Languages option.

**STEP 7**

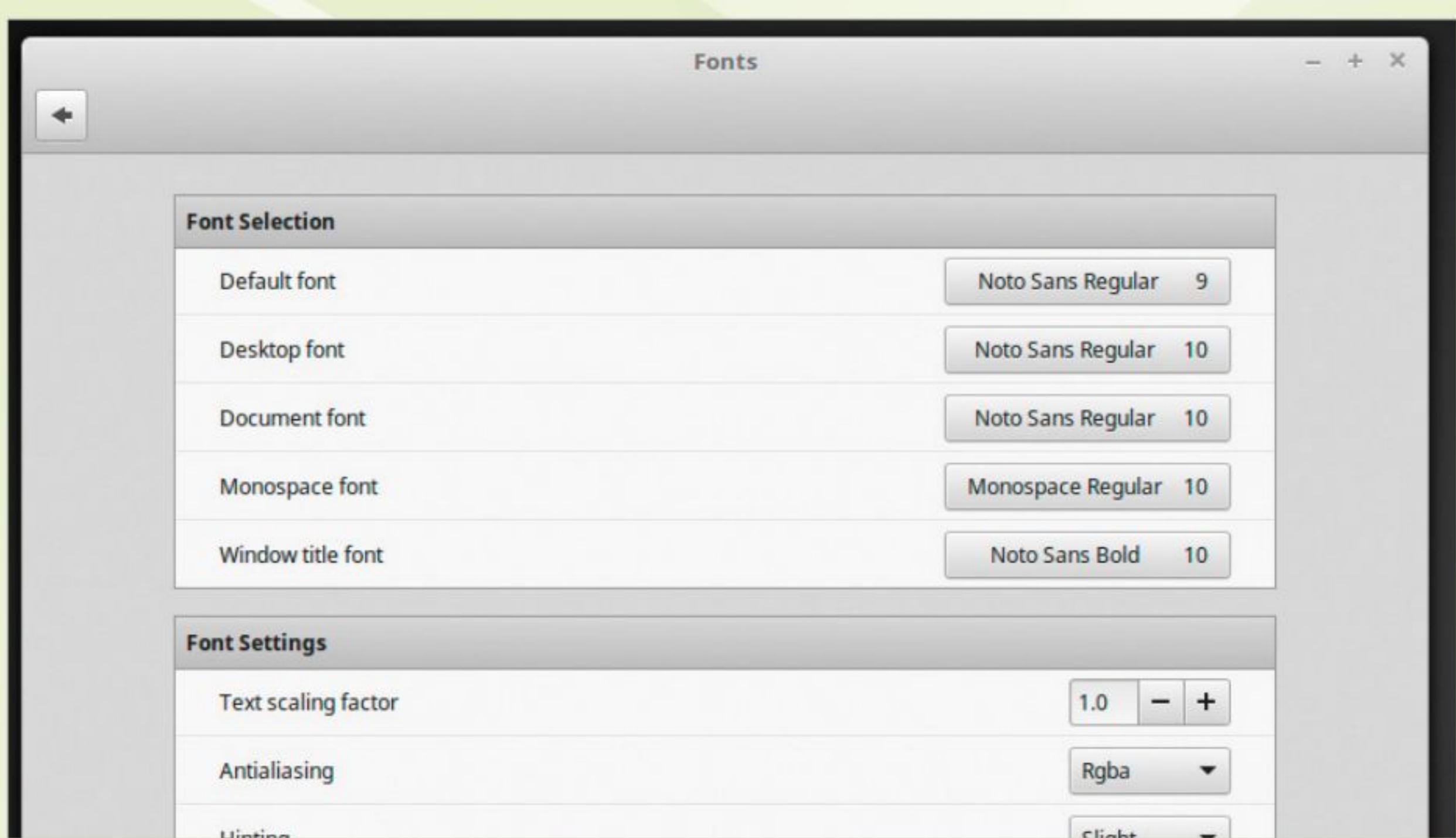
The Languages console enables you to change the default language or region, system locale, and even lets you install additional languages. Needless to say, there are hundreds of languages available should you need to add a new one.

**STEP 8**

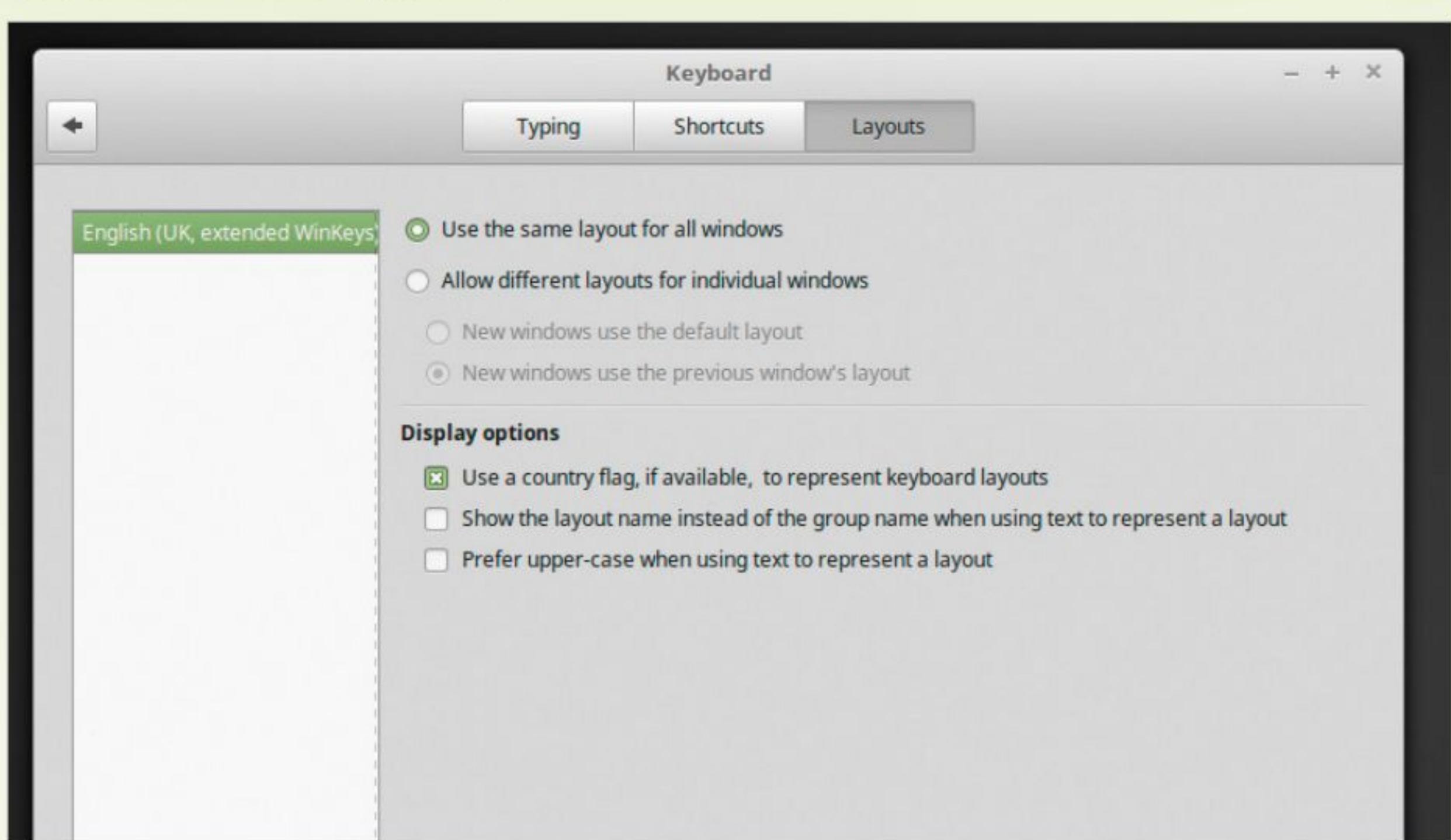
The second tab from the Languages console, Input Method, allows you to input symbols and characters from other languages and keyboard layouts that aren't present on your keyboard. Should you need to write something in another language, then this is the place to set up the input.

**STEP 9**

Moving back to the System Settings console, locate the Fonts option. Although not always directly associated with accessibility, Linux Mint does allow you to alter the default, document and window fonts. You can choose a more readable font, for those with visual disabilities, or you can scale the text to better suit the user.

**STEP 10**

Finally, if you need to change the keyboard layout for a user, then click the Keyboard option from within the System Settings console. Click the Layouts tab. From there you're able to add a new keyboard and even dictate how it's used within the system.





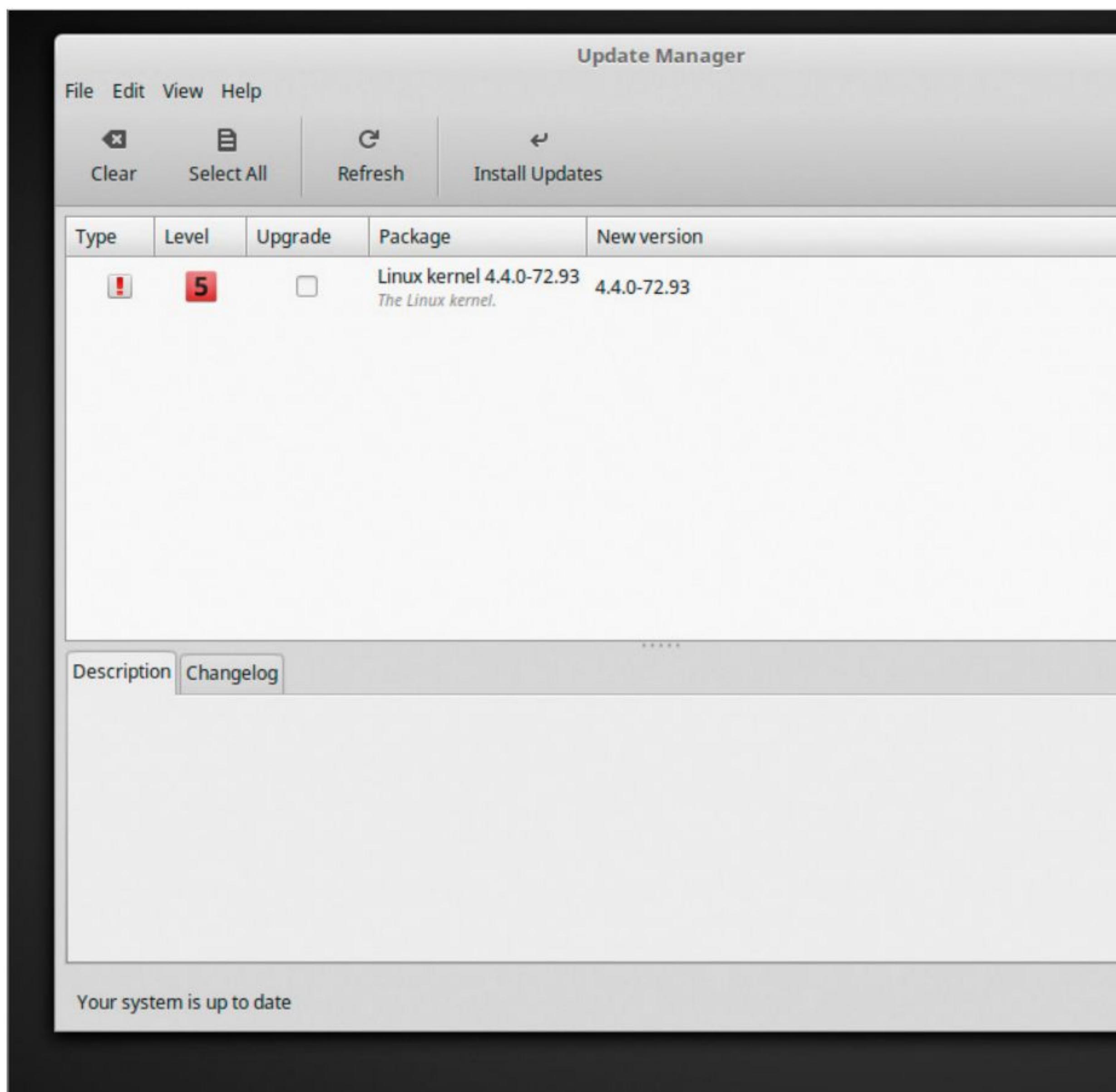
Hot Corners

Hot Corners are active areas of the desktop where an action is activated should you do something to them. This could be clicking in a corner to activate a menu, or displaying all the available Workspaces. Windows users will be familiar with Hot Corners for switching desktop views.

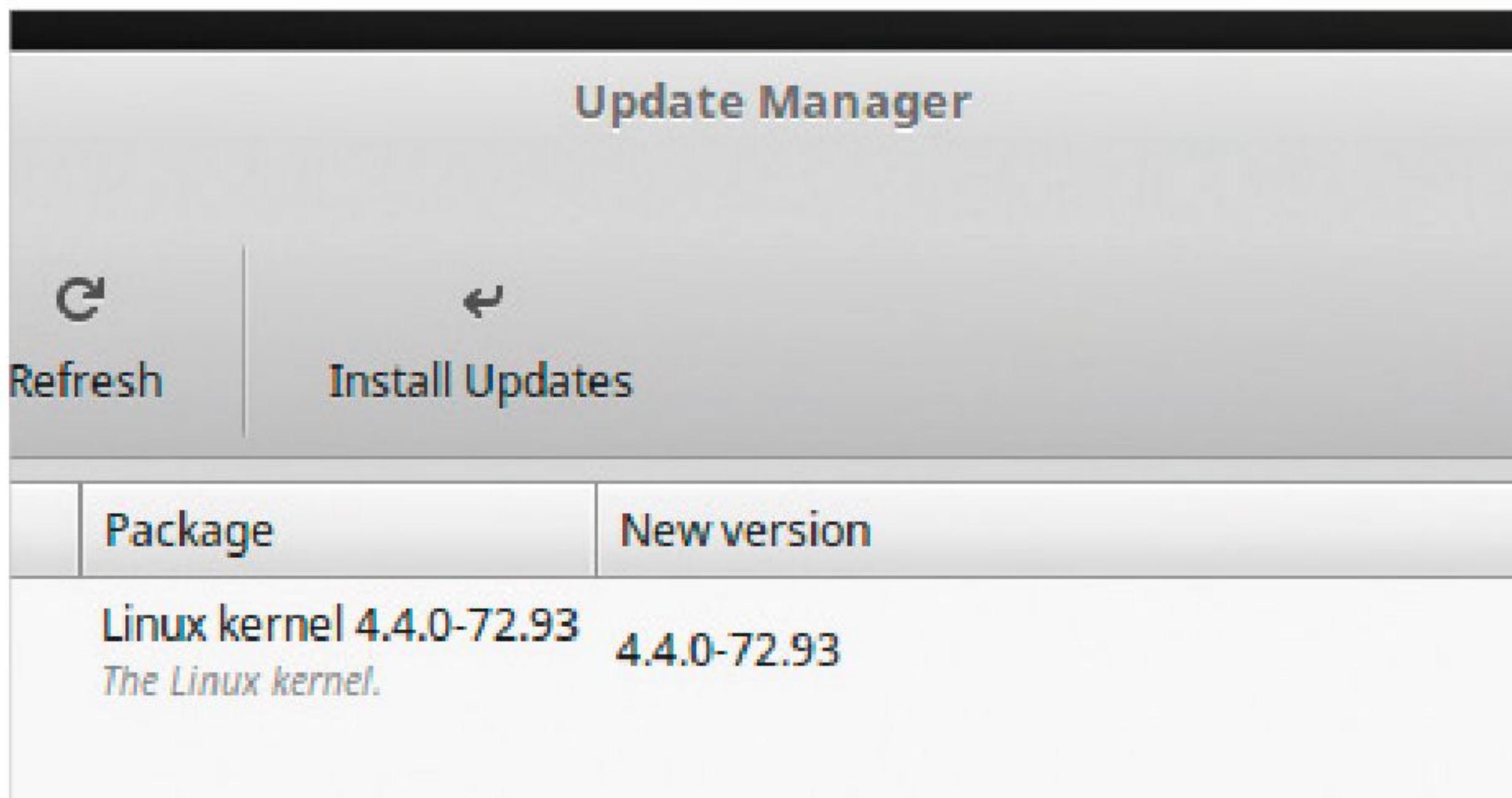
HANDS-ON HOT CORNERS

Hot Corners in Linux Mint Cinnamon is a great feature and one that you'll come to appreciate as you gain experience and use the desktop. They're easy to implement and of course, edit and customise.

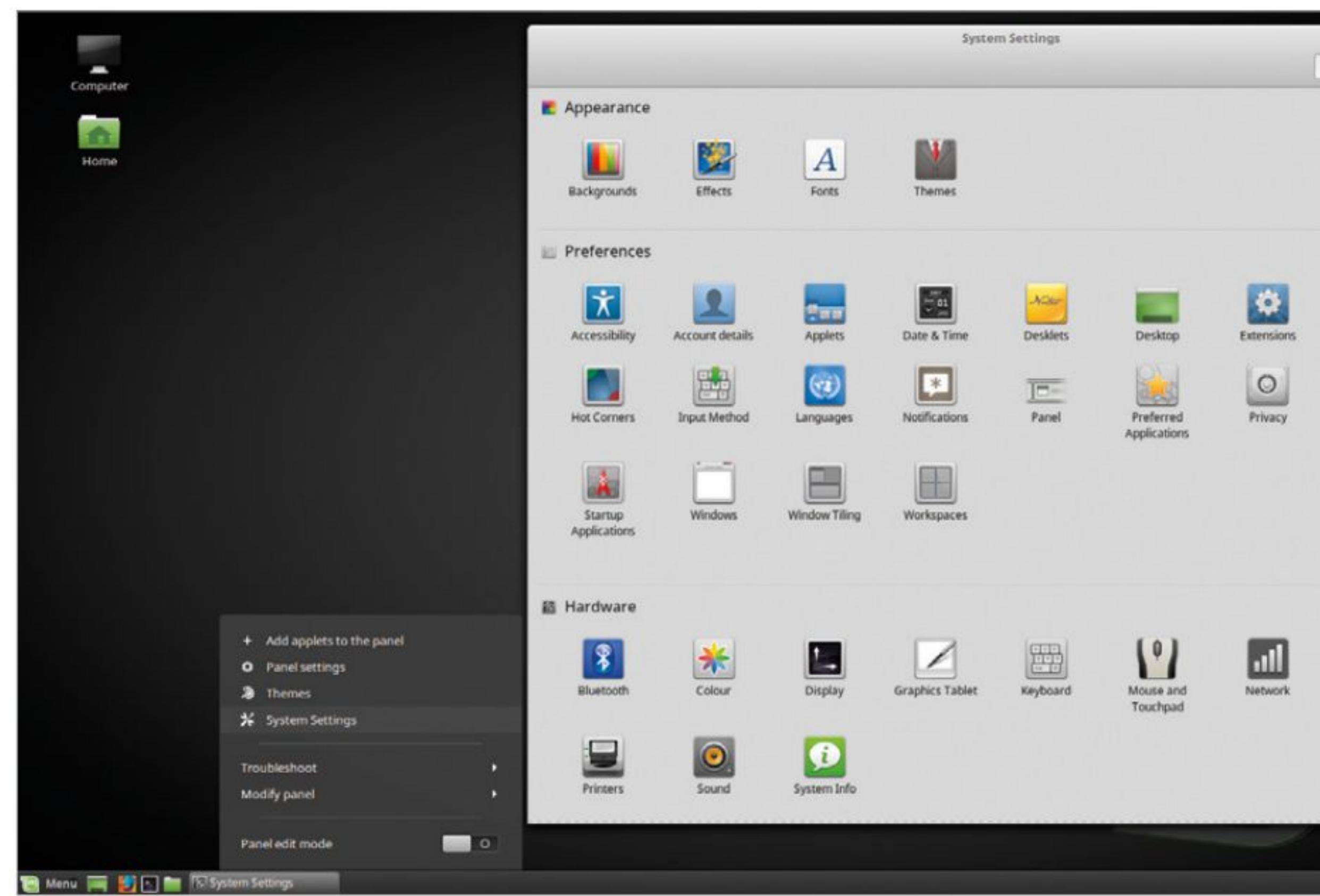
STEP 1 Before we begin, it's a good habit to check for any system updates. There may be a fix, software enhancement or added functionality that we could use, so click the shield icon to launch the Update Manager.



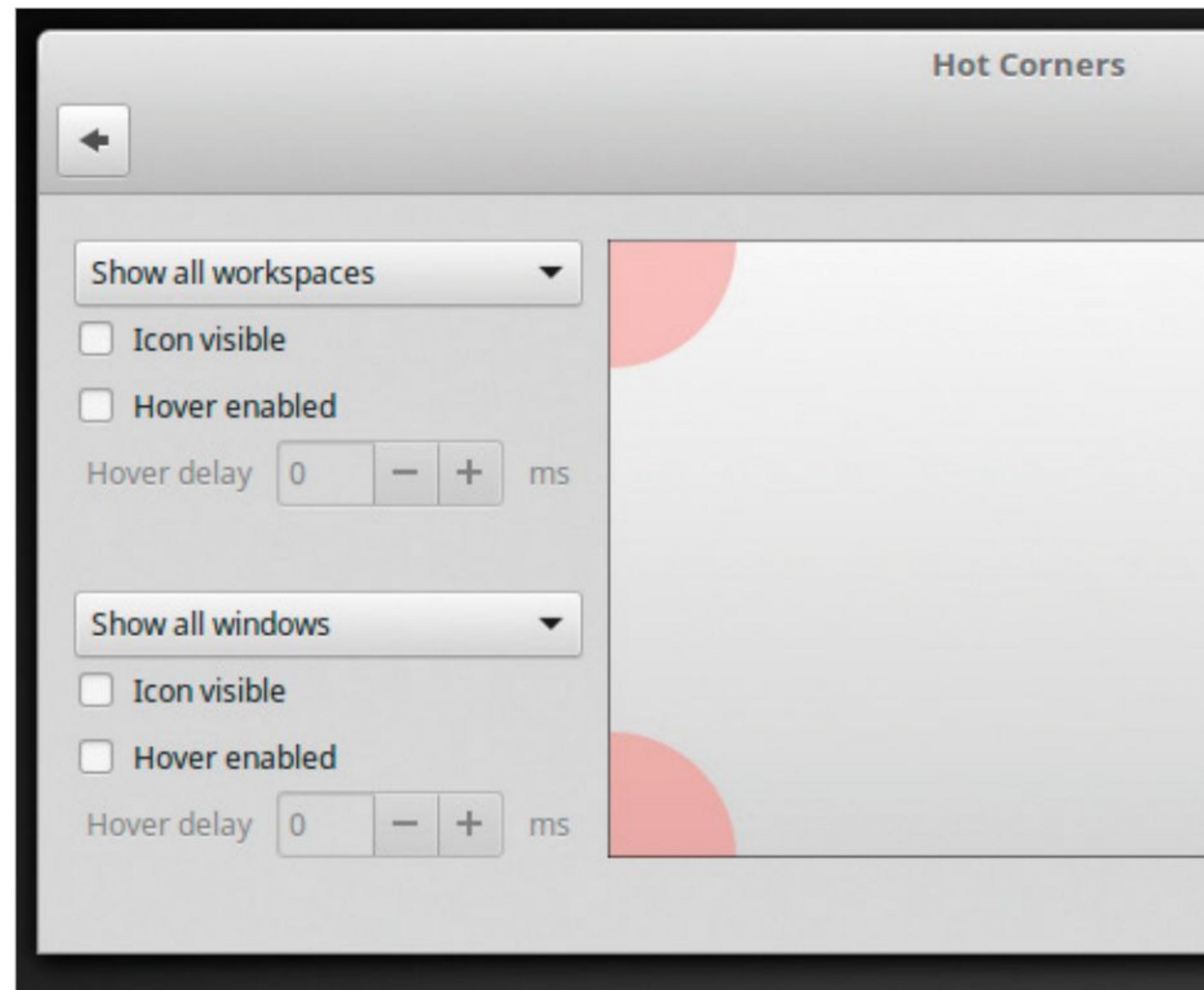
STEP 2 Linux Mint will usually auto-check for any updates but you can always push the request through manually by clicking the Refresh button located on the top bar of the Update Manager console window. If there are any level-3 or less updates, then click the Install Updates button to apply them.



STEP 3 Once the updates are complete, close the Update Manager window. Now right-click the Panel and choose System Settings from the menu. In the System Settings console window, look out for Hot Corners; you can find it in the Preferences section.

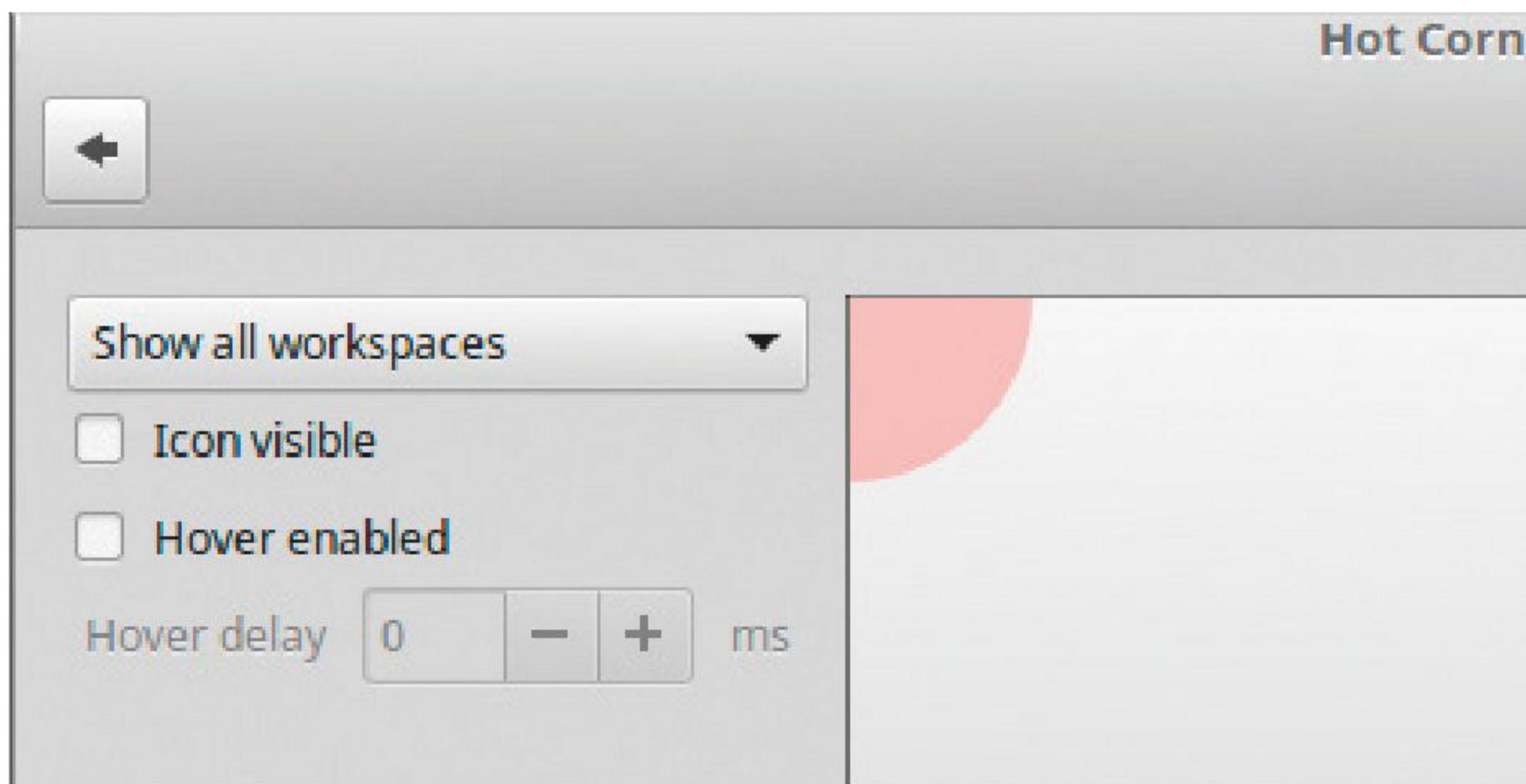


STEP 4 The Hot Corners console window details the locations and associations of each of the corners. By default none of the Hot Corners are active, so you need to activate them yourself. You can have one active Hot Corner, two or all four if you wish.



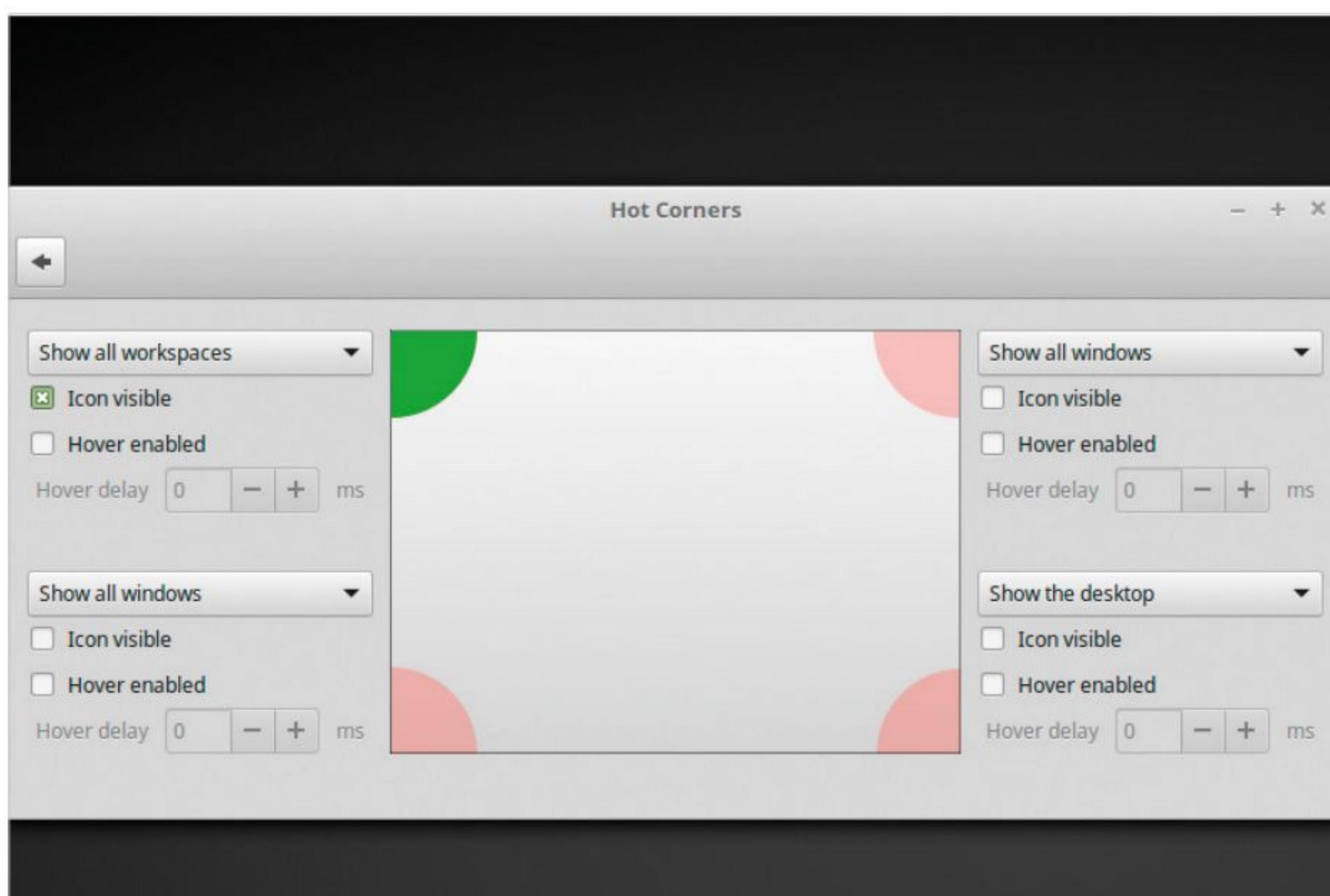
STEP 5

Let's start with the top left Hot Corner. You have three main choices associated with each of the Hot Corners: a drop-down menu detailing the action that will happen when the Hot Corner is activated, an option to display an icon over its location, and an option to enable Hover mode.



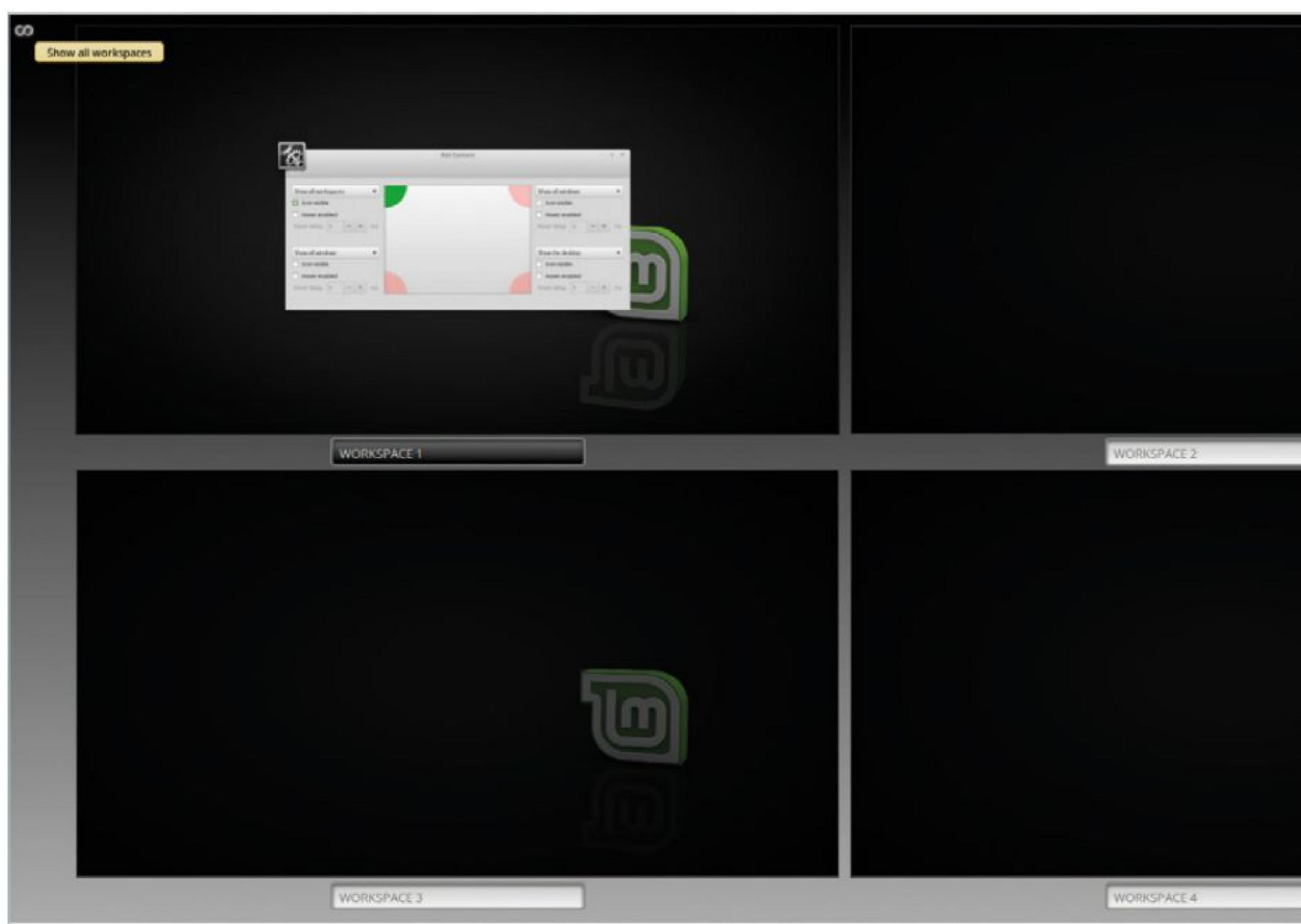
STEP 6

For the moment, use the Show All Workspaces action and tick the box to make the Icon Visible as it's easier to depict in a screenshot. Ticking the Icon Visible box does two things: it turns the Hot Corner green in the Hot Corners console and puts an infinity sign in the top left of the desktop.



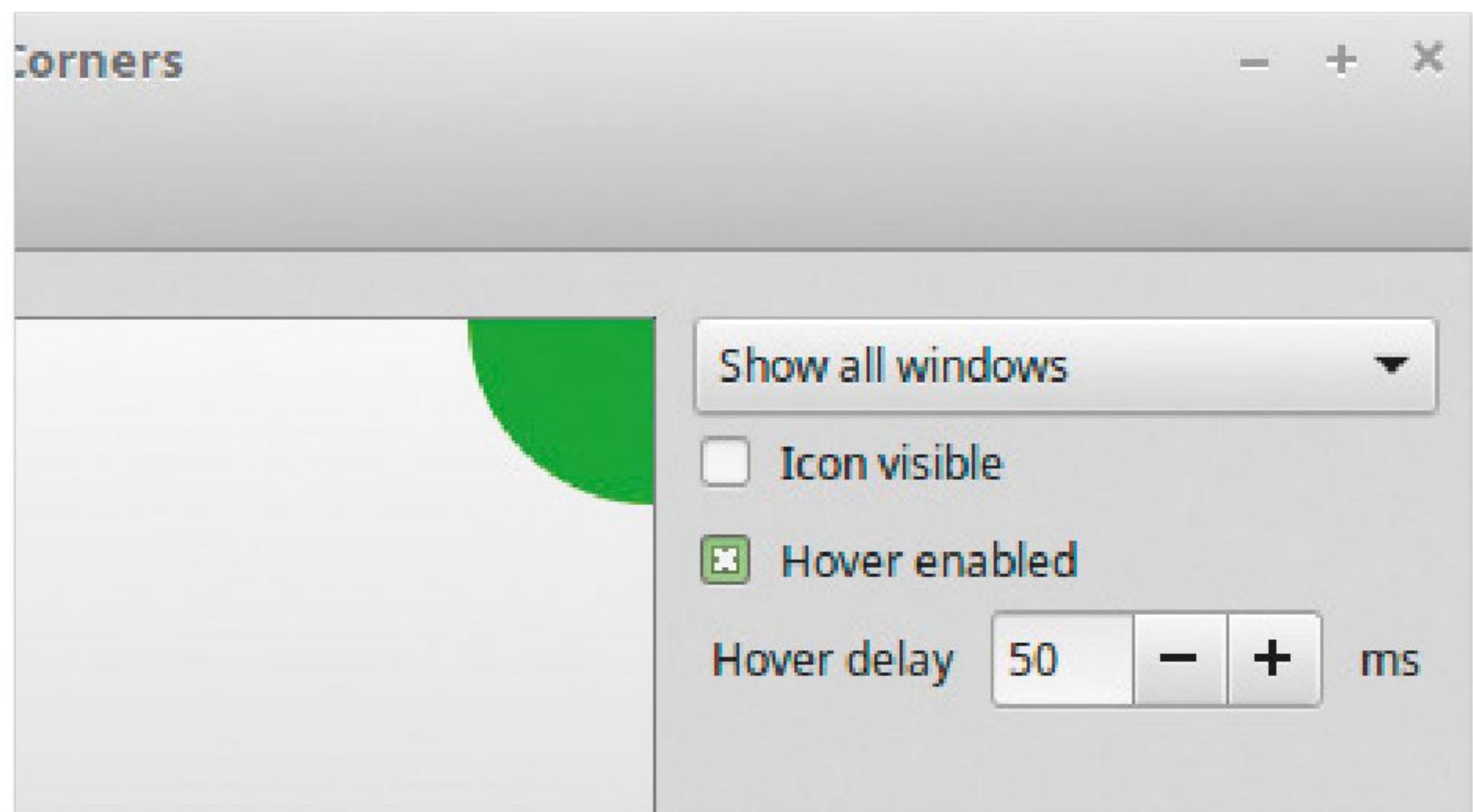
STEP 7

If you now click on the newly placed infinity sign, the icon representing the new Hot Corner, the desktop will be split into an Expo-mode displaying the available Workspaces. You can click the Workspace with the Hot Corners console window in it to return to the desktop you're working on.



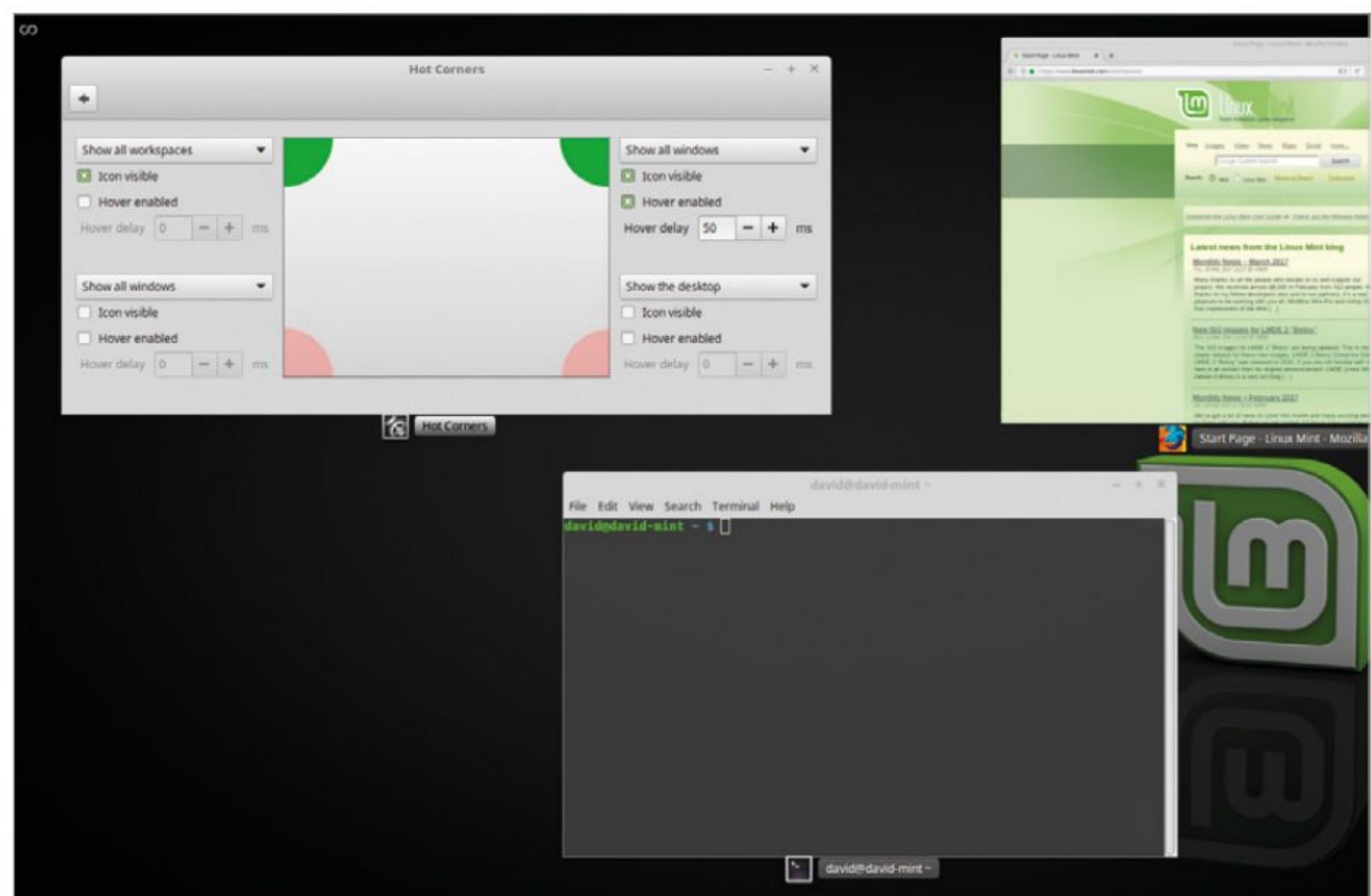
STEP 8

Now look to the top right Hot Corner. Choose Show All Windows here and instead of ticking the Icon Visible option, opt for Hover Enabled and choose 50ms as the delay time until the Hot Corner becomes activated.



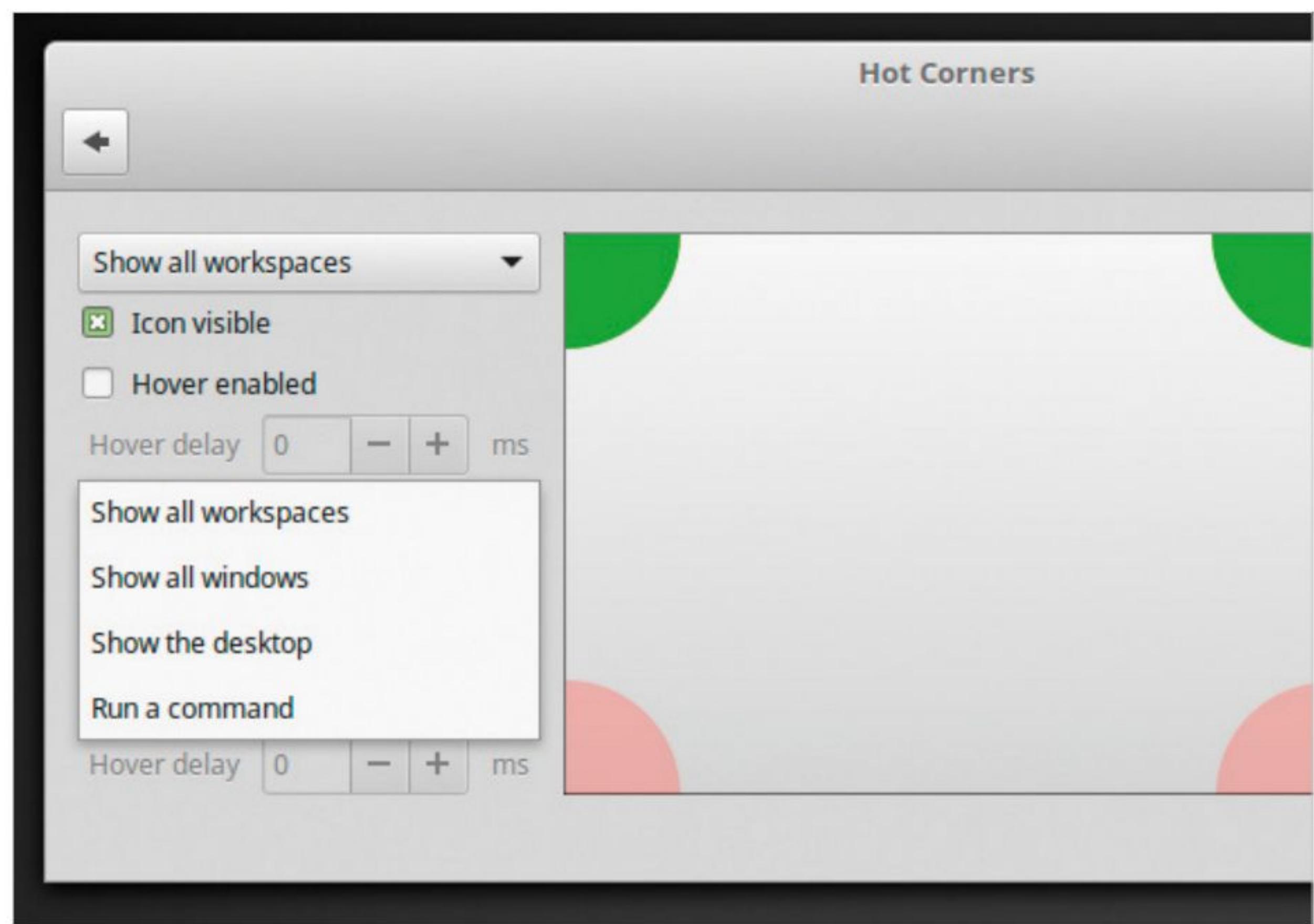
STEP 9

You may need to exit the Hot Corners console window or re-enable the Hover tick box for the mouse action to work. We've found it to be a little hit-and-miss at times but if all else fails, use the Icon Visible option. Regardless, when you click the new Hot Corner (or hover over it), all the active windows are displayed.



STEP 10

You can change the action behind the Hot Corners from Show all Workspaces and Show all Windows to Show the Desktop and Run a Command if you like. You can even activate the bottom corners too but they interfere with the Panel; unless you eventually end up with a different Panel.





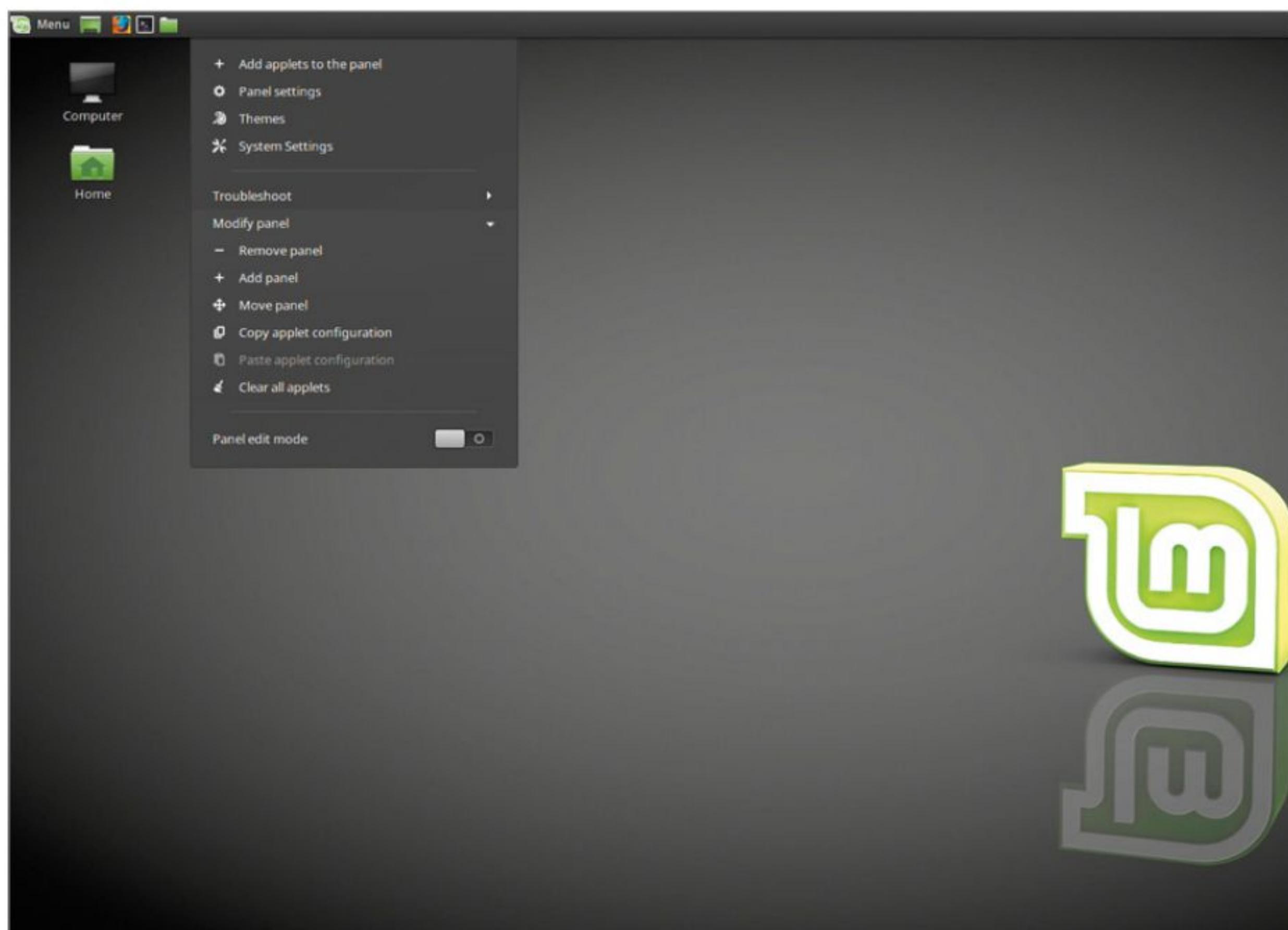
Installing a New Panel

If you're thinking of 'modding' your desktop and changing its entire look, then a good place to start is to install and use a new type of Panel. These are called Docks and work in much the same way as the macOS offering.

DOCKING MINT

Docks are used to launch applications, shortcuts, locations and even run command-line programs. They can be simple, or amazingly complex, and most look great when blended with an appropriate theme.

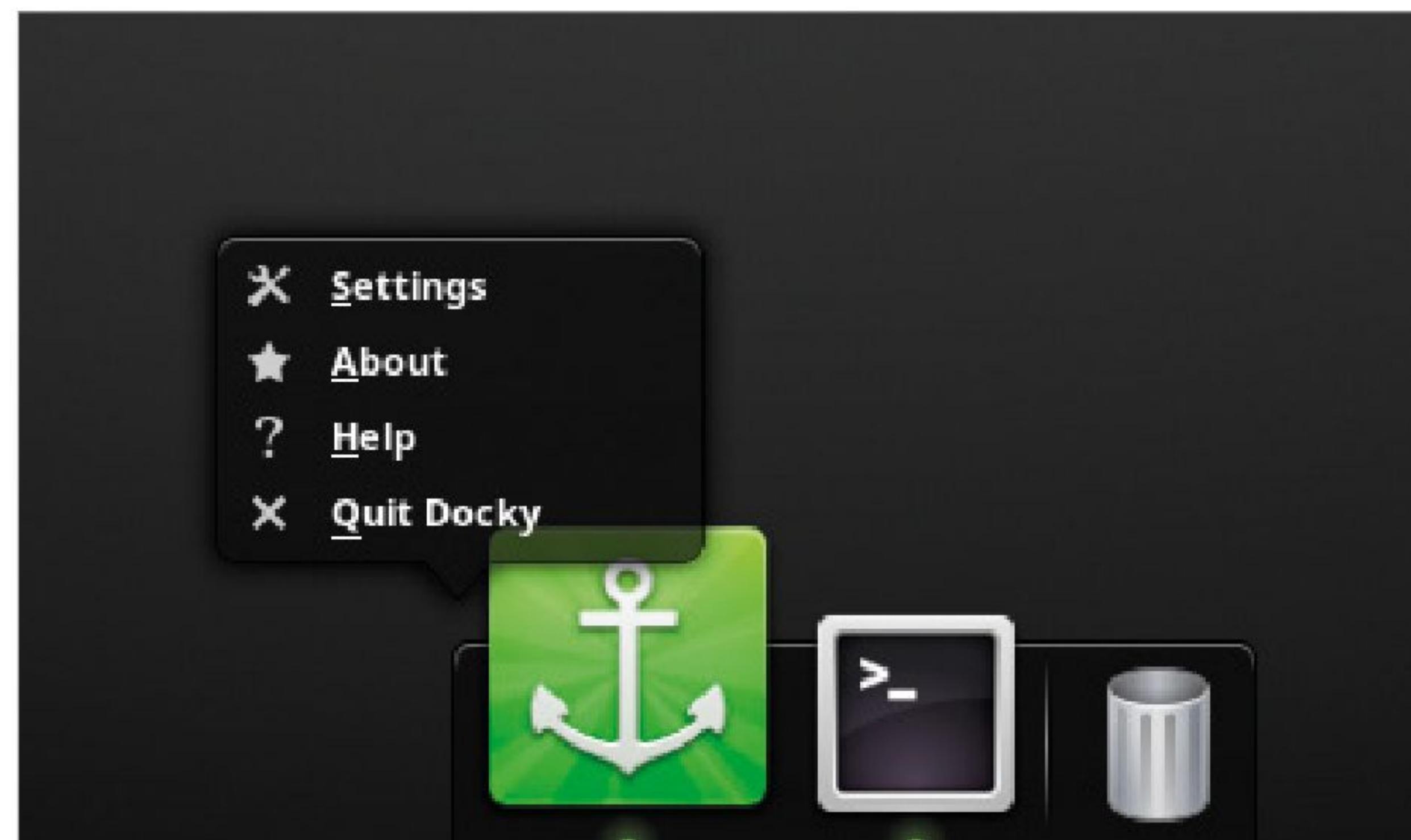
STEP 1 We'll look at several Docks over the next couple of pages. First though, we need to move the current Panel to make room for the new dock. Right-click the Panel then choose Modify Panel > Move Panel. For the time being, move it to the top of the desktop.



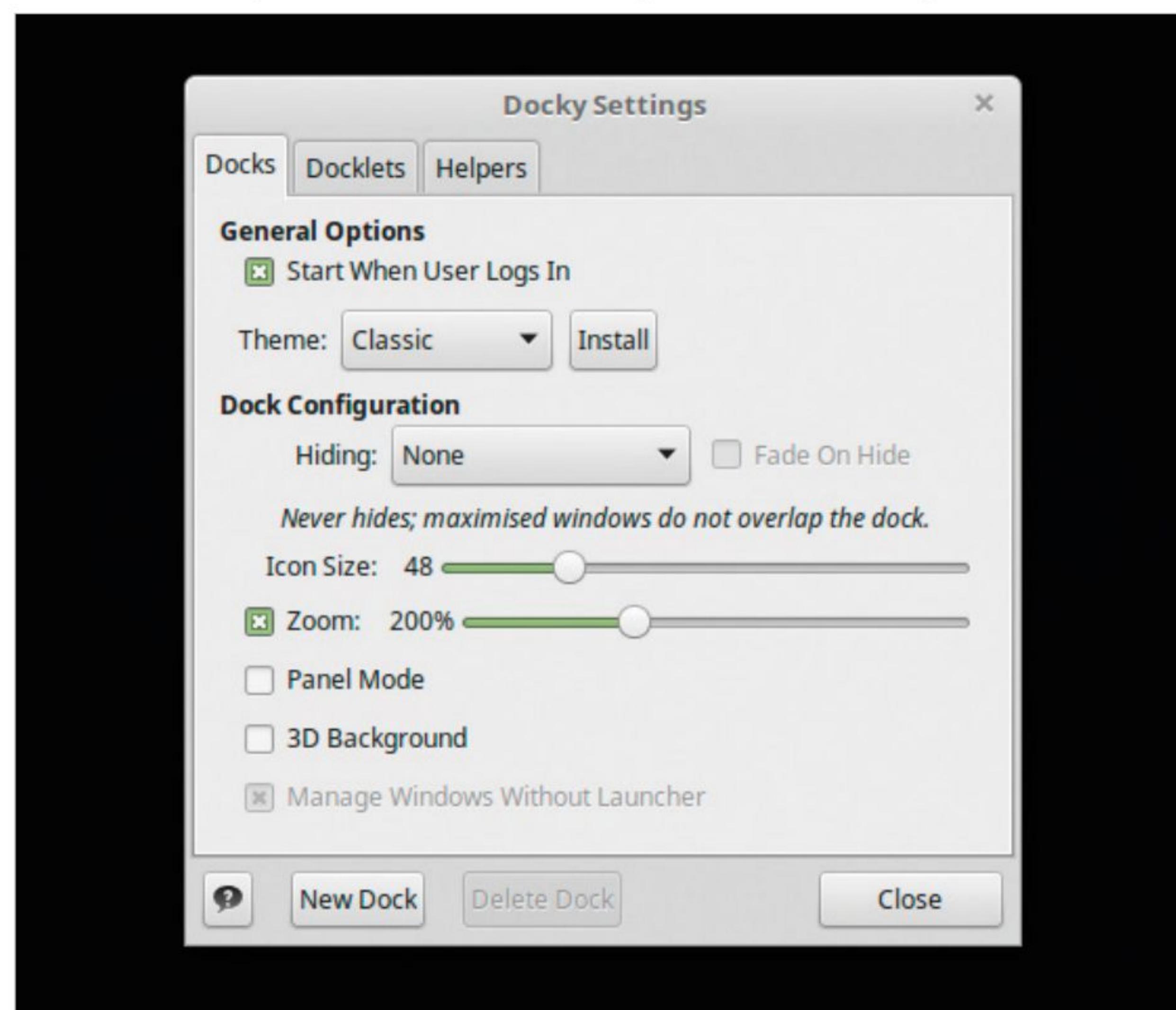
STEP 2 Next up, click the Terminal icon in the Panel, it's the one between Firefox and Files. Let's start by installing Docky, a popular Dock with many users. In the Terminal, enter: `sudo apt-get install docky`. Enter your password, then press **y** to accept the installation.

```
david@david-mint: ~ $ sudo apt-get install docky
[sudo] password for david:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
libgkeyfile1.0-cil libmono-keyring1.0-cil libmono-accessibility4.0-cil libmono-data-tds4.0-cil
libmono-ldap4.0-cil libmono-sqlite4.0-cil libmono-system-componentmodel-dataannotations4.0-cil
libmono-system-data4.0-cil libmono-system-design4.0-cil libmono-system-enterpriseservices4.0-cil
libmono-system-ldap4.0-cil libmono-system-numerics4.0-cil
libmono-system-runtime-serialization-formatters-soap4.0-cil libmono-system-runtime-serialization4.0-cil
libmono-system-servicecomponent-internals4.0-cil libmono-system-transactions4.0-cil
libmono-system-web-applicationservices4.0-cil libmono-system-web-services4.0-cil libmono-system-web4.0-cil
libmono-system-windows-forms4.0-cil libmono-system-xml-linq4.0-cil libmono-webbrowser4.0-cil
libnotify0.4-cil
Suggested packages:
libgnomeui-0
Recommended packages:
dockmanager libgluezilla
The following NEW packages will be installed:
docky libgkeyfile1.0-cil libmono-keyring1.0-cil libmono-accessibility4.0-cil libmono-data-tds4.0-cil
libmono-ldap4.0-cil libmono-sqlite4.0-cil libmono-system-componentmodel-dataannotations4.0-cil
libmono-system-data4.0-cil libmono-system-design4.0-cil libmono-system-enterpriseservices4.0-cil
libmono-system-ldap4.0-cil libmono-system-numerics4.0-cil
libmono-system-runtime-serialization-formatters-soap4.0-cil libmono-system-runtime-serialization4.0-cil
libmono-system-servicecomponent-internals4.0-cil libmono-system-transactions4.0-cil
libmono-system-web-applicationservices4.0-cil libmono-system-web-services4.0-cil libmono-system-web4.0-cil
libmono-system-windows-forms4.0-cil libmono-system-xml-linq4.0-cil libmono-webbrowser4.0-cil
libnotify0.4-cil
0 to upgrade, 24 to newly install, 0 to remove and 5 not to upgrade.
Need to get 3,727 kB of additional disk space will be used.
After this operation, 167 MB of additional disk space will be used.
Do you want to continue? [Y/n]
```

STEP 3 When the installation is complete, enter `docky` into the Terminal to launch it. Docky will now start and be placed at the bottom of the desktop with a few icons present. Move the mouse pointer to the far left of Docky and right-click to bring up the menu. Click on the Settings option.

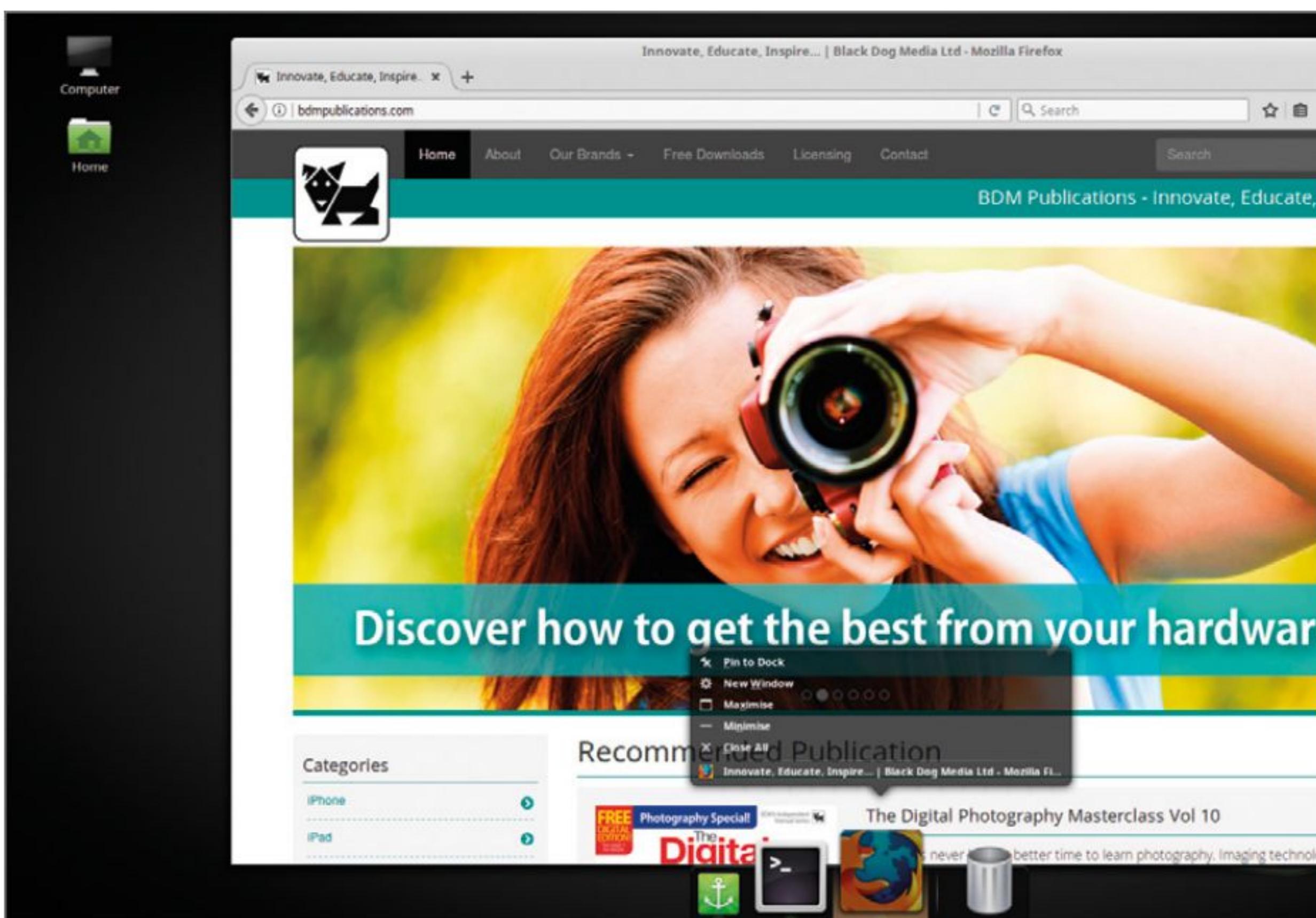


STEP 4 The Docky Settings allow you to choose a Theme and alter the Configuration. You can add Docklets (apps) to the Docky bar, change it to a 3D view and even convert it into a Panel-like mode. Docky will also auto-start when you log back in to Linux Mint, so you don't need to worry about launching it.



**STEP 5**

When you launch an app, it appears in the Docky bar, right-click the launcher in Docky to permanently pin it. Eventually, you can have all your regularly used apps and shortcuts pinned to Docky; then set the original Mint Panel to auto-hide, or remove it completely.

**STEP 6**

If Docky isn't for you, then drop back into a Terminal and enter: `sudo apt-get remove docky` to uninstall it. Whilst you're still in the Terminal, enter: `sudo apt-get install cairo-dock cairo-dock-plug-ins`, and again press **y** to accept the installation files to continue. When complete, enter `cairo-dock` to launch.

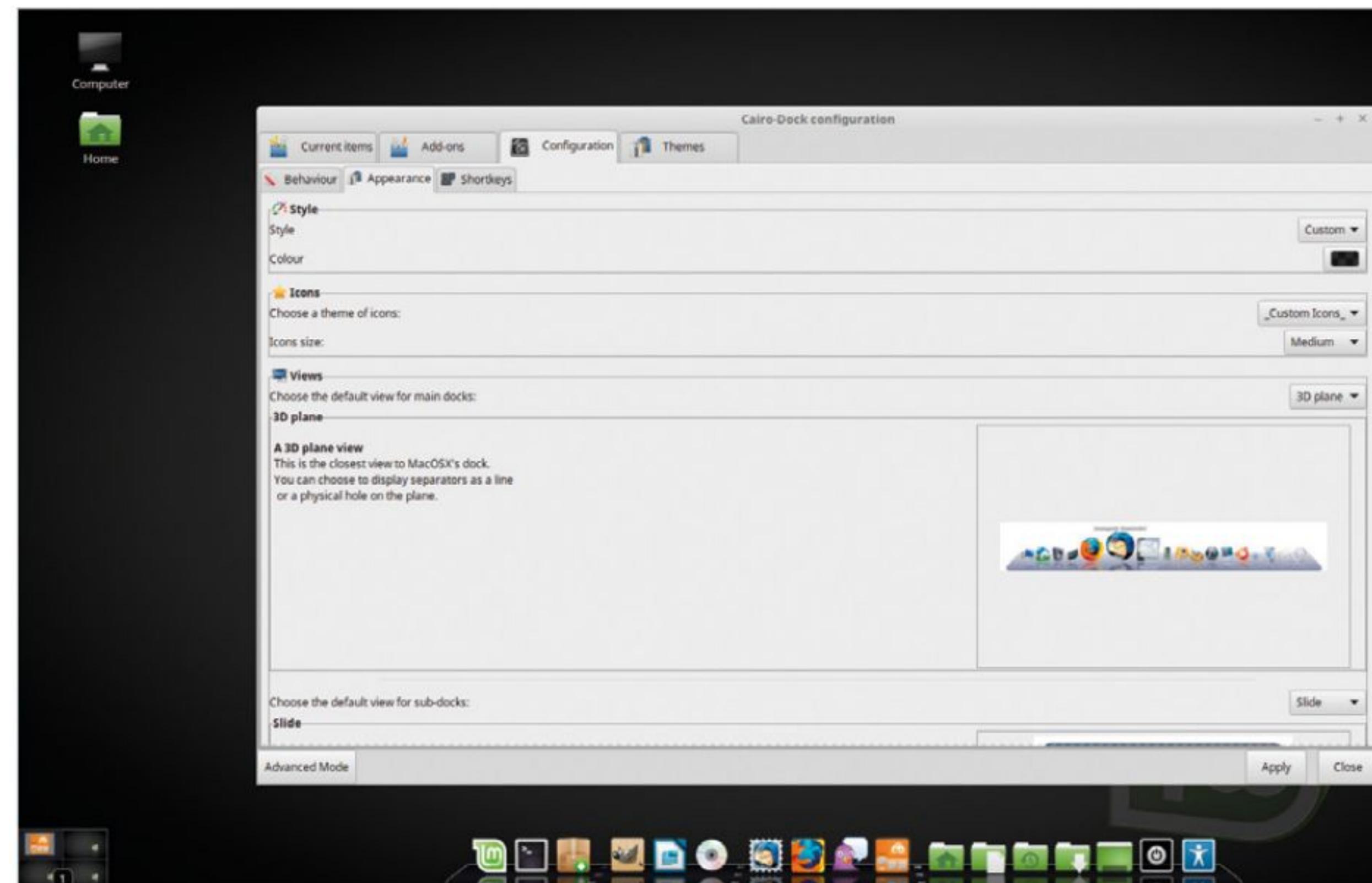
```
david@david-mint ~ $ sudo apt-get install cairo-dock cairo-dock-plug-ins
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  cairo-dock-core cairo-dock-data cairo-dock-plug-ins-data cairo-dock-plug-ins-dbus-interface-python
  cairo-dock-plug-ins-integration libelpan17 liblido3 0.1-0
Suggested packages:
  compiz-plugins gnome-session alacarte cairo-dock-plug-ins-dbus-interface-mono
  cairo-dock-plug-ins-dbus-interface-ruby cairo-dock-plug-ins-dbus-interface-vala compiz qnote
  indicator-bluetooth indicator-messages indicator-network indicator-printers indicator-sound indicator-sync
Recommended packages:
  compiz-plugins el17 | kde-window-manager | openbox | xfwm4 | mutter | marco | muffin
The following NEW packages will be installed:
  cairo-dock cairo-dock-core cairo-dock-data cairo-dock-plug-ins cairo-dock-plug-ins-data
  cairo-dock-plug-ins-dbus-interface-python cairo-dock-plug-ins-integration libelpan17 liblido3 libido3 0.1-0
0 to upgrade, 5 to newly install, 0 to remove and 5 not to upgrade.
Need to get 5,371 kB of archives.
After this operation, 18.8 MB of additional disk space will be used.
Do you want to continue? [Y/n]
```

STEP 7

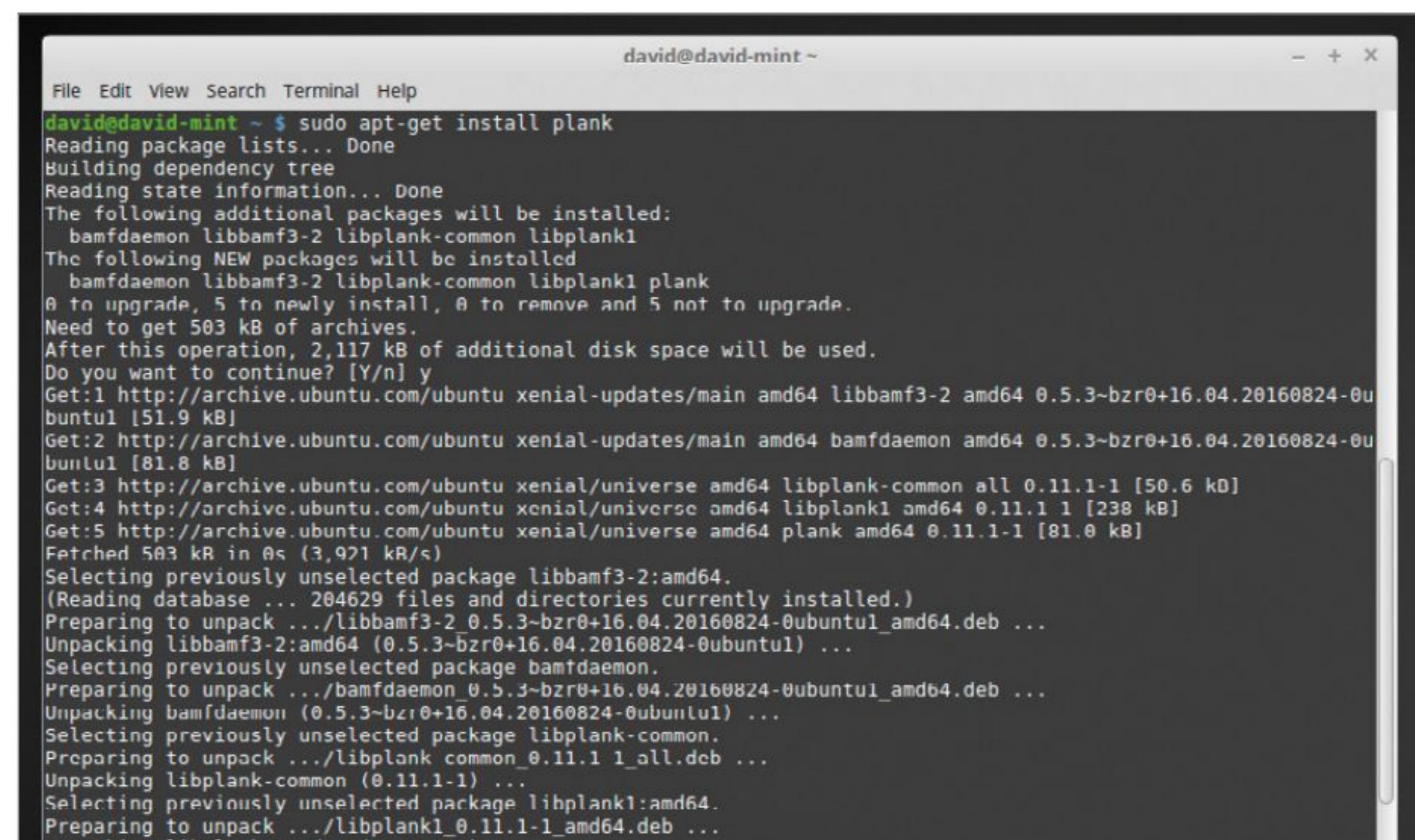
Cairo Dock is an exceptional dock. It auto-populates the dock bar with animated icons and includes a Workspace Switcher in the bottom left corner of the desktop. To get to the settings, right-click the left edge of Cairo Dock and choose Cairo-Dock > Configure from the menu.

**STEP 8**

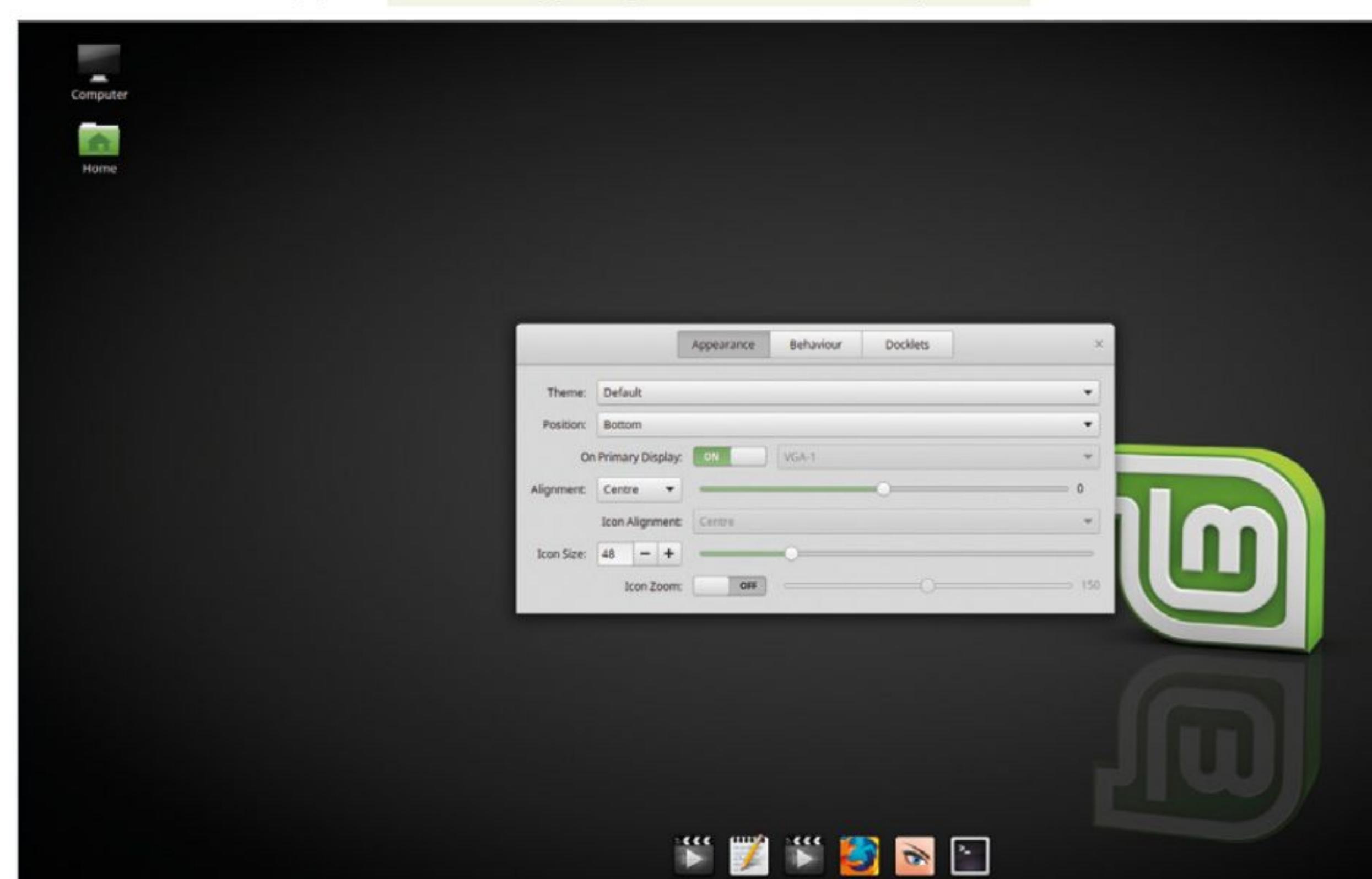
There are countless settings and configurations you can opt for in Cairo Dock, from its appearance, themes and icon sizes, to what's installed on the dock and more; there's even an Advanced mode for the more adventurous among you. If Cairo Dock doesn't suit you, in the Terminal enter: `sudo apt-get remove cairo-dock cairo-dock-plug-ins`.

**STEP 9**

The last dock to try is Plank. In the Terminal enter: `sudo apt-get install plank`, then `plank` to launch it when the installation is complete. Plank is a simple, lightweight dock, that can be easily customised with extra themes and add-ons. Right-click the left-edge to bring up the Preferences.

**STEP 10**

Plank offers a range of customisations, behaviours and added Docklets. Browse through the settings to find the setup that best suits you. To remove Plank, enter the Terminal and type: `sudo apt-get remove plank`.





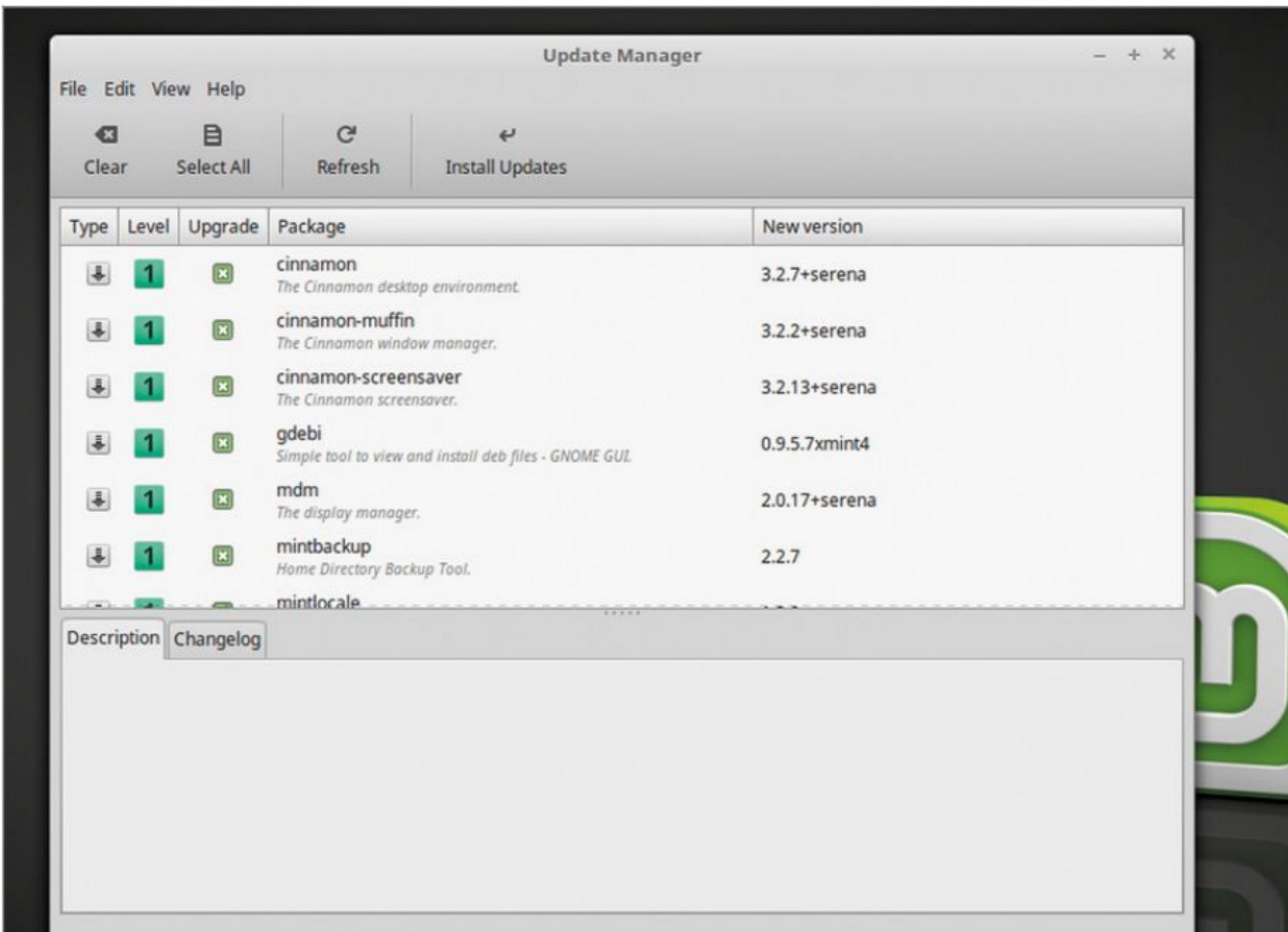
Edit Notifications

The way notifications are handled in Linux Mint has evolved considerably over the years. From the early versions of Mint, where a simple pop-up appeared, to the more modern glass-effect look that we see in Cinnamon and the other desktop environments.

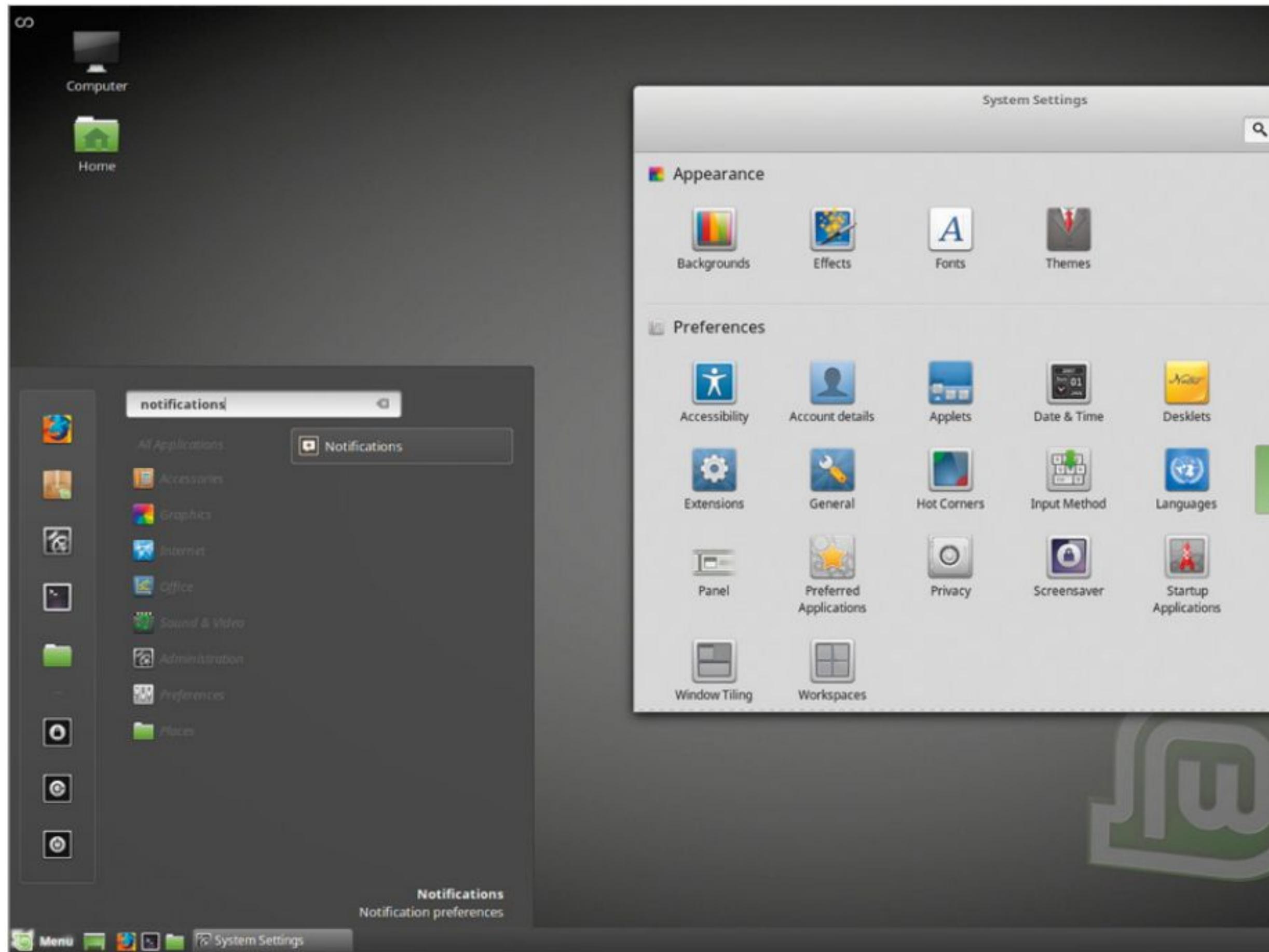
NOTICE GIVEN

There's not a lot you can do with regards to how a notification is given in Linux Mint but you can edit some of the settings to make it easier to read, and you can change their behaviour slightly.

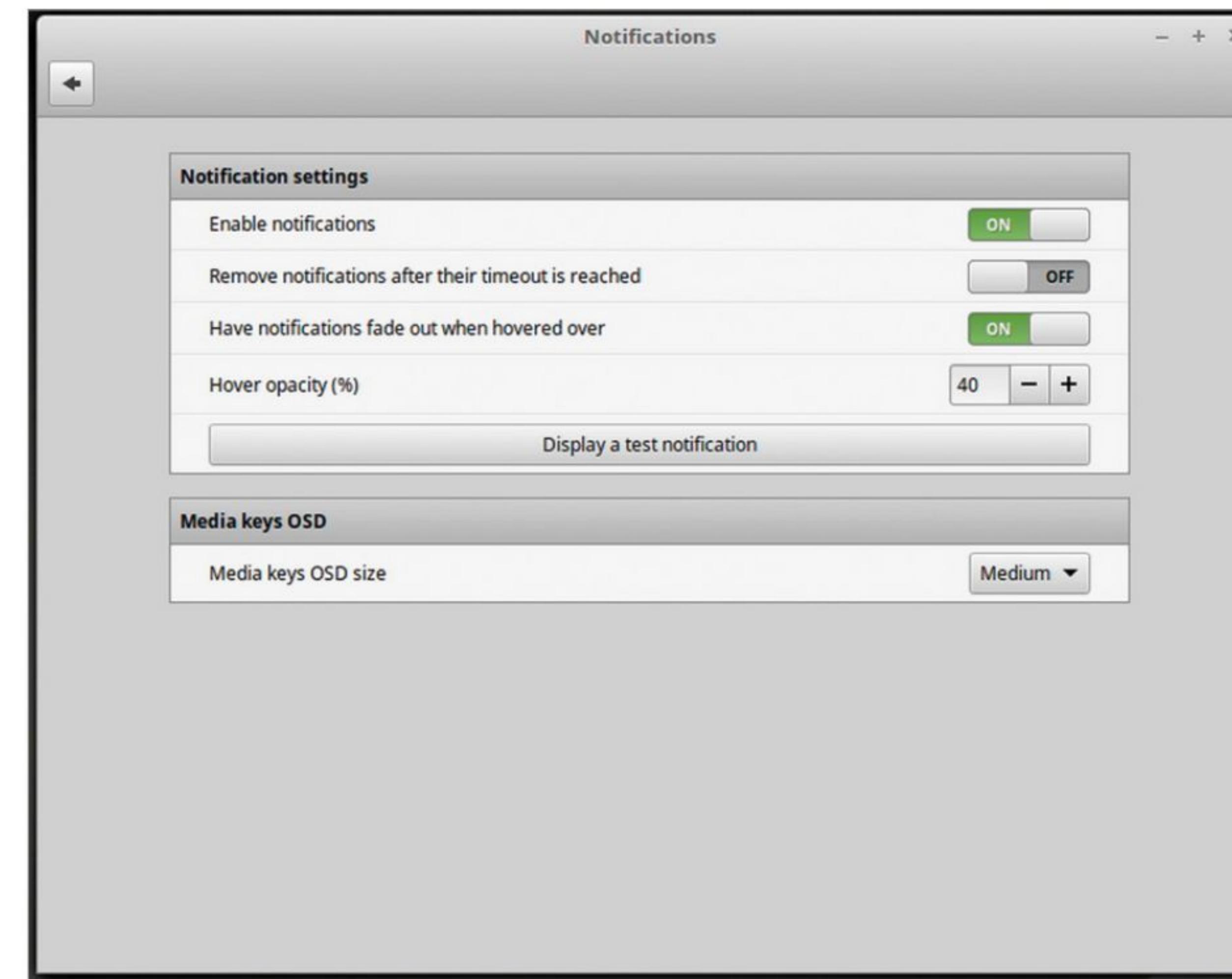
- STEP 1** First check for any system updates. As we've done before, click on the shield icon to launch Update Manager, click the Refresh button to force a manual check for updates, and if there are any level-3 or less available click the Install Updates button. If you've already done this, then you can skip this step.



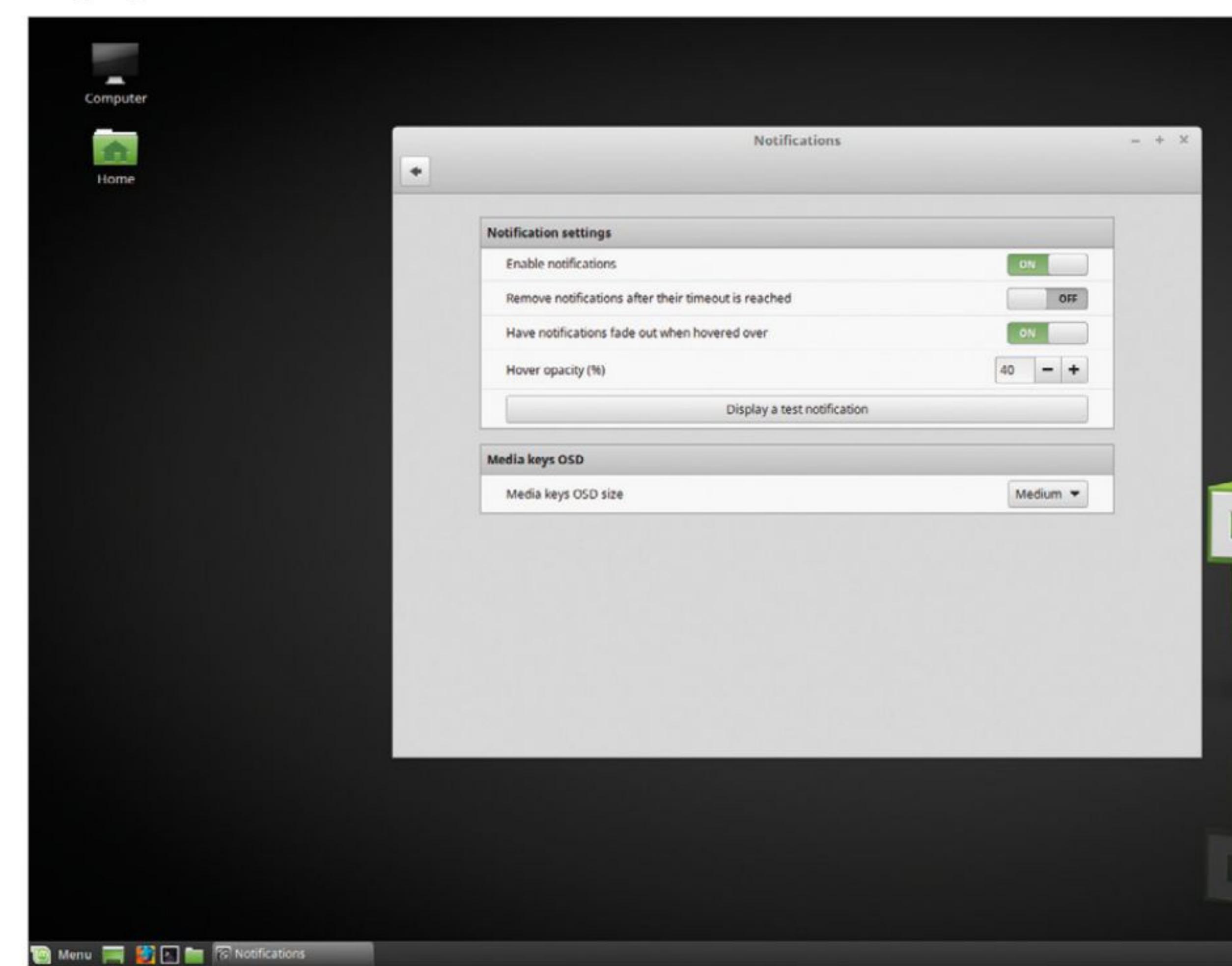
- STEP 2** You can get to the Notifications setting by either clicking on the Mint Menu and typing notifications into the search, then clicking on the Notifications search result; or you can right-click the Panel > System Settings > Notifications, which is in the Preferences section.



- STEP 3** The Notification console window allows you to set the behaviour of notifications in Linux Mint and how they're displayed on your desktop.



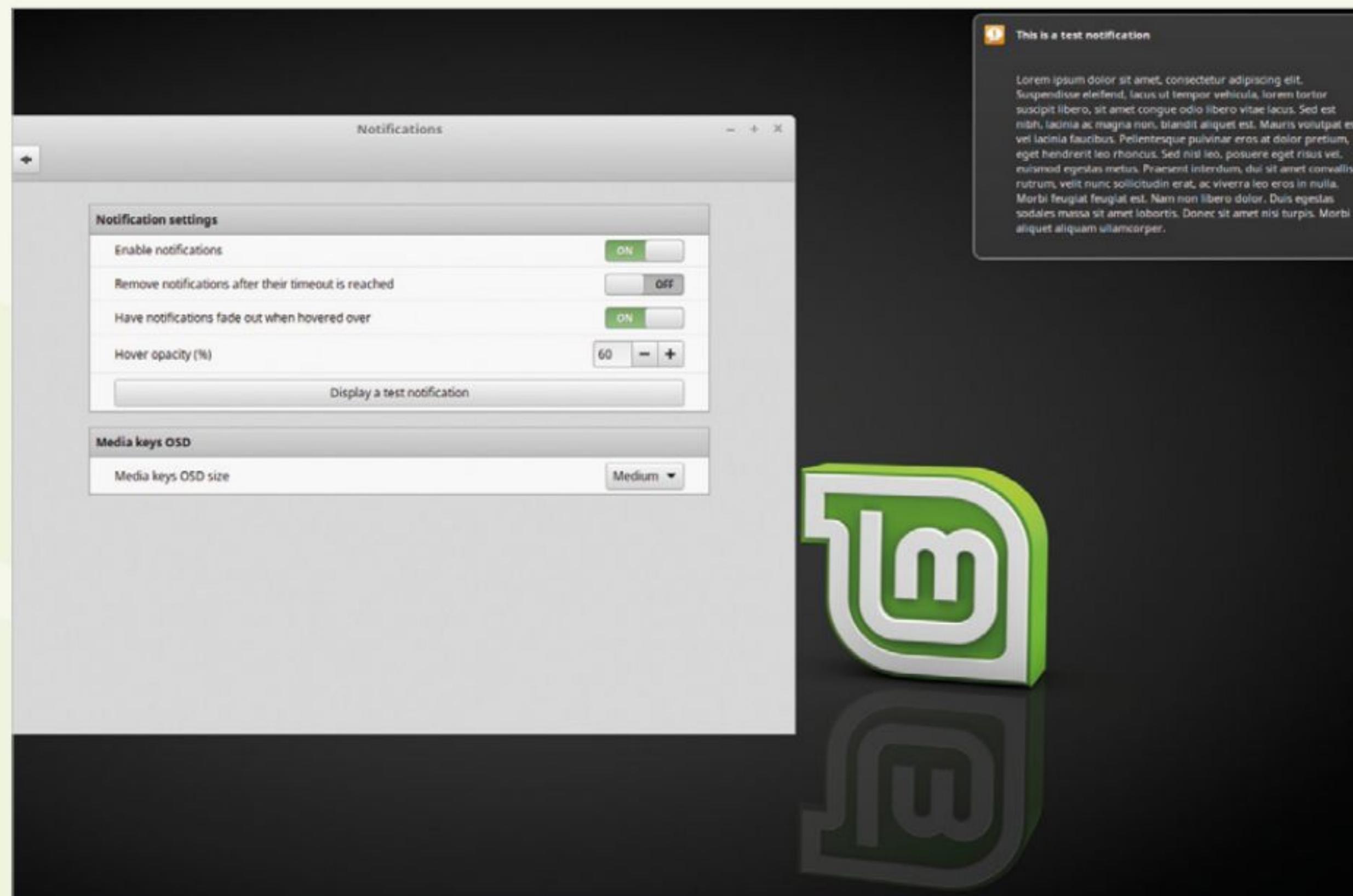
- STEP 4** Before you alter any of the settings, it's worth clicking the Display test notification button, under the Notifications Settings section, to see how Mint currently displays a notification.



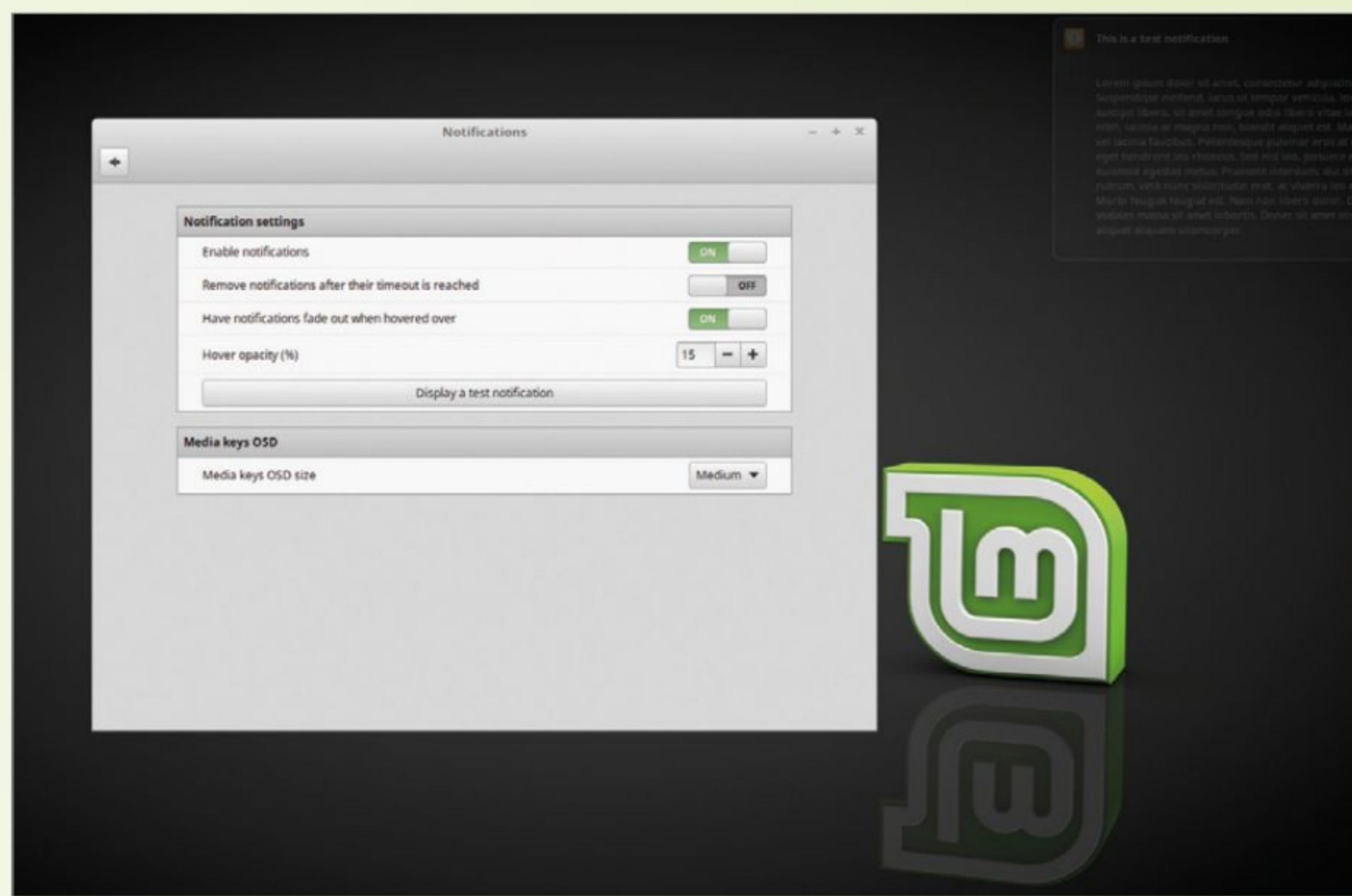
STEP 5

Start by altering the Hover Opacity (%) from 40 to 60.

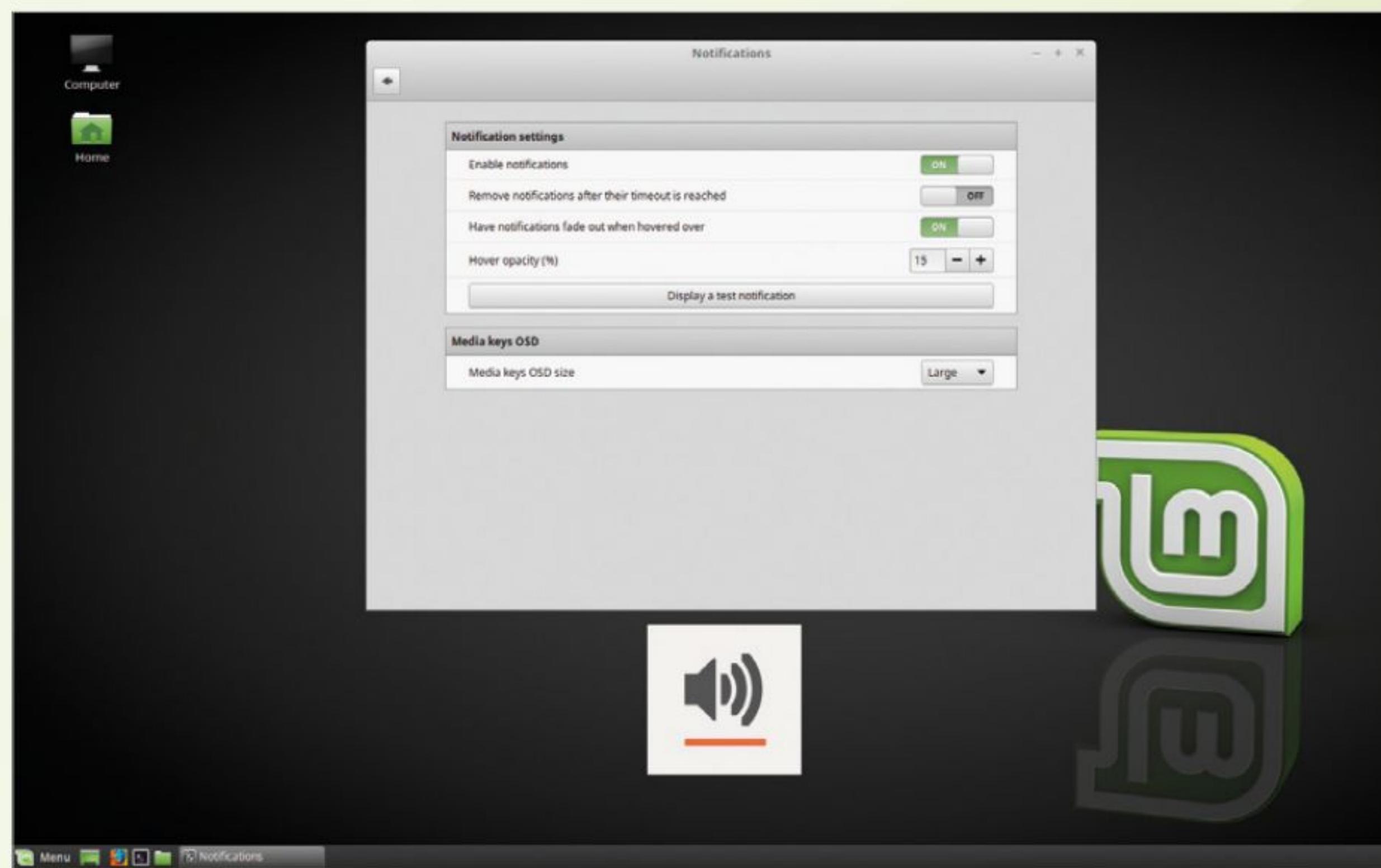
Then click the Display test notification button again to see how it has altered the displayed message. It's always recommended to keep testing any changes you've made, to see how much of an impact they have on the way the system behaves.


STEP 6

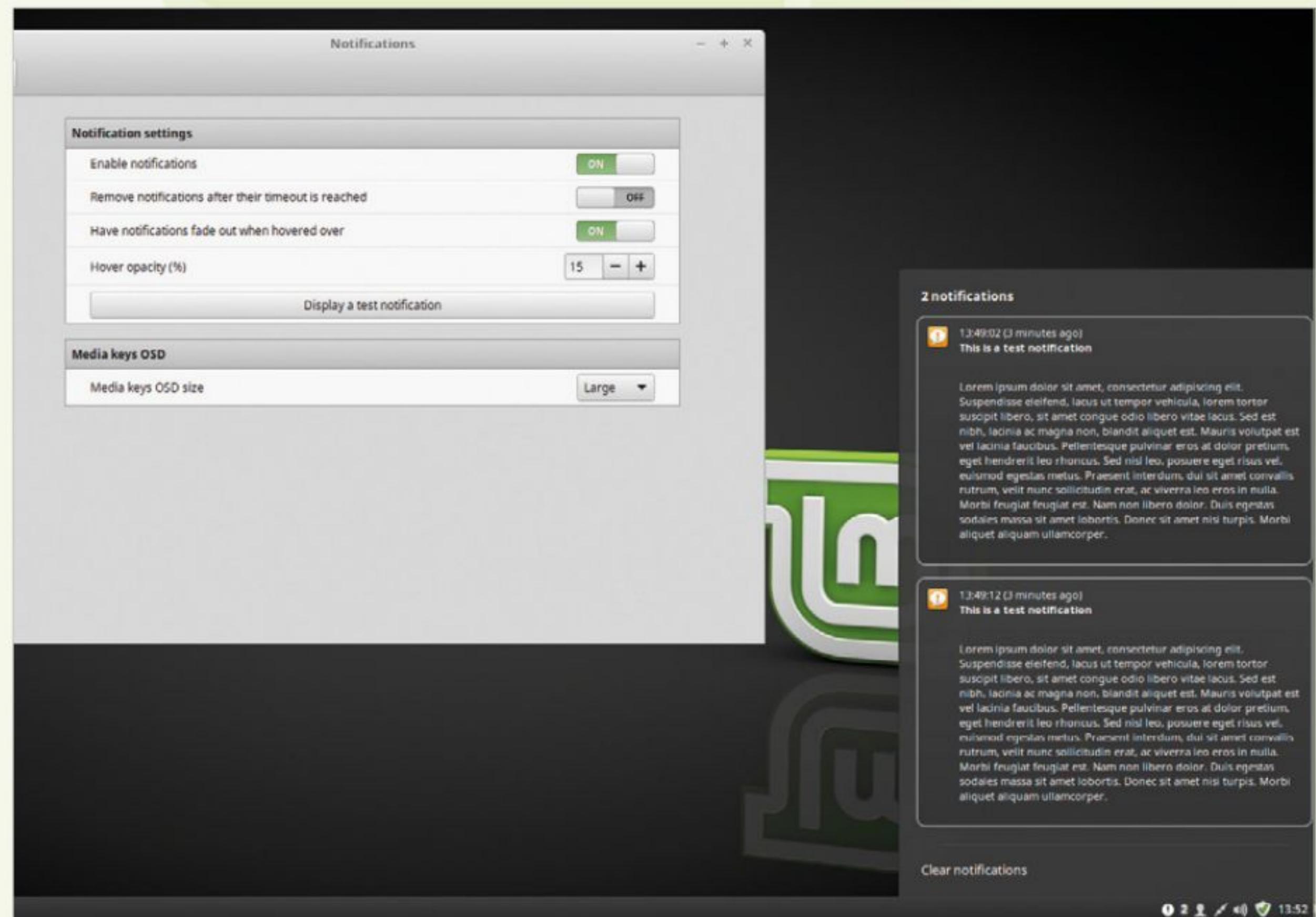
Now drop the Opacity setting down to 15 per cent, click the Display test notification button again and see how it affects the message. In the end, it's purely a personal preference, so keep experimenting until you have a setting that suits you best.


STEP 7

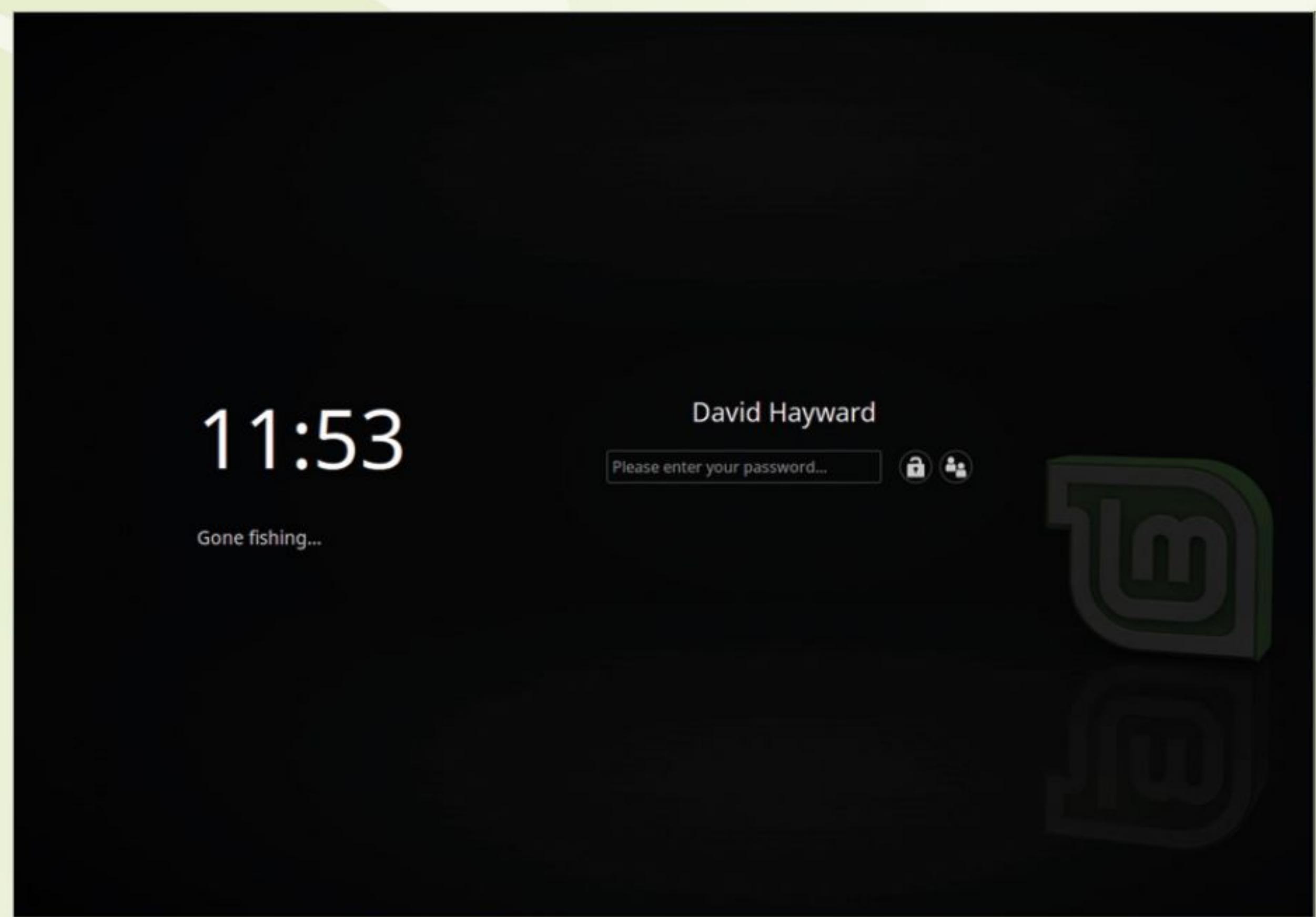
From within the Notification console window you're able to disable notifications completely and set the On Screen Display size of the Media Keys for when you increase the volume by using one of the keys on your keyboard, for example.


STEP 8

You can see that any new notifications are displayed on the Panel, to the right-hand side. You can right-click the Notifications icon in the Panel then choose Configure to set a couple of extra options.


STEP 9

Any notifications you receive when you're away from your computer will be displayed on the lock screen. You can find them in the top right of the lock screen desktop.


STEP 10

There are some ways in which you can edit the notifications further. However, they involve altering the CSS files of the theme you're currently using and in most cases it's not recommended.

