

You can record the events in a particular window by choosing the 'Select Window' option

To the left of the application window is a live screenshot of your desktop

Switch the audio recording on or off by checking or unchecking the 'Sound Quality' box

recordMyDesktop has a simple and clean interface that leaves out all the complicated options

How to create a screencast

Screencasts have become a very popular way to make tutorials to explain how software or services work. Let's look at how you can make them for your own open source project...

Advisor

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Screencasts are short narrated video screen captures of your computer screen. They are usually shared on the web and used heavily by tutorial websites. They make tutorials a lot more lively and at times can be more effective than tutorials that use only text and images. You can create a screencast quite easily and share it with others on your website or over a video sharing service such as YouTube or Vimeo. Let's look at how you can create a screencast using free software on your Linux desktop or laptop. We'll set up the software recordMyDesktop and then create a simple screencast so that you can see how the entire cycle works.

01 Let's make a screencast

To explain how to make a screencast on your Linux desktop or laptop, we'll install the software recordMyDesktop, set it up and then create a simple screencast. The screencast we'll create here will be about how to install software on Ubuntu Linux using the Synaptic Package Manager. First we'll look at what are the different elements involved in performing this task, then we'll look at the installation of the software, we'll create a storyboard for the screencast, before we proceed to recording the video and audio. After the recording is done, we'll edit both the video and audio elements and add some text to create the final product.

How to create a screencast

Record a screencast, edit it, then put it online

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02 The plan and the storyboard

Before you start playing with all the cool tools involved in making your screencast, it is quite important to plan things out. You need to figure out what your screencast aims to do, how long it's going to be, what the level of understanding the audience you are creating this video for is, among other things. You also need to write a storyboard for your screencast. A storyboard is a rough representation of the video and can be used as a general timeline of scenes. Each scene would address a different aspect of your product.

In the screencast we are working on, we would need the following:

1. Introduction (explain to viewers what you will cover in the video)
2. What is Synaptic
3. How to launch Synaptic
4. How to install software using Synaptic
5. How to remove a package
6. Adding/removing repositories
7. Refreshing your sources
8. Comparison to other package managers
9. Conclusion (a few words summarising what you have covered)

03 Write the script

Once your storyboard is ready, you have a scaffolding of your screencast. Now it's time to fill this in with some content. The content we are using in this screencast consists of a video and an audio commentary. In this step, you will need to write out the script for the audio commentary that you will read out for the screencast based on the storyboard. Read the text out loud a few times to make sure things are fine and that you are comfortable with the commentary. Let's get our hands dirty with the video now.

04 What you need

If you have a desktop or a laptop running a modern distribution of Linux, it should suffice for creating a screencast. However, if you throw in a good-quality microphone and a virtual machine such as a VMware workstation or VirtualBox, you could get better results. Note that if you plan to use a virtual machine for recording your screencast, the host machine should be pretty powerful in terms of resources. Even if you do not use a virtual machine, you will need a reasonably

Resources

recordMyDesktop <http://recordmydesktop.sourceforge.net>

audacity <http://audacity.sourceforge.net/>

Virtual Box <http://www.virtualbox.org/>

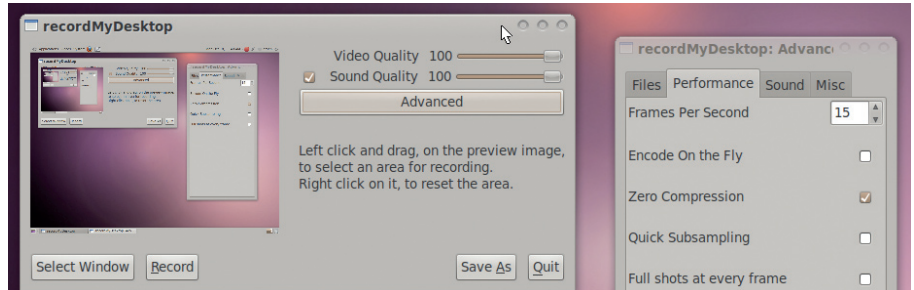
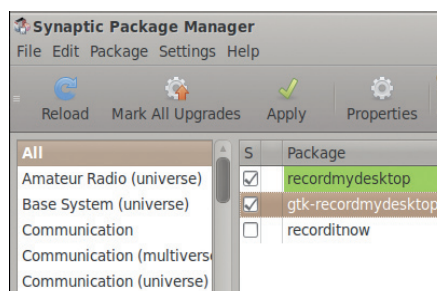


Fig 1 Start recording video The main screen and options of recordMyDesktop

powerful machine as video encoding requires a lot of processing capabilities.

05 Install recordMyDesktop

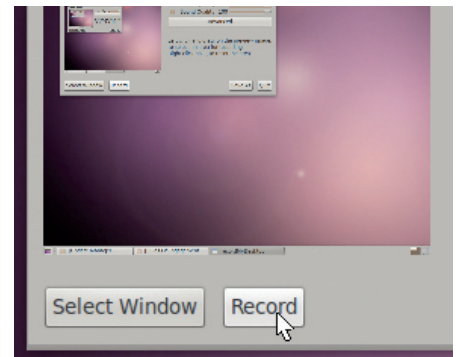
Ubuntu, Fedora and so many other modern Linux distributions have made installing software very easy using smart package management systems such as apt-get and YUM. Using the package manager of your distribution of Linux, install the package 'gtk-recordmydesktop'. The software is in the repositories of the recent releases of Ubuntu Linux. To install recordMyDesktop on Ubuntu Linux, you can either execute the following in a command line terminal – 'sudo apt-get install gtk-recordmydesktop' – or install the software using the Synaptic Package Manager.



■ Install recordMyDesktop using Synaptic

06 Start recording video

Now that we have the main software for our screencast installed, let's take it for a test drive to make sure things are working fine. Launch recordMyDesktop from the application menu. If you're using Ubuntu, go to 'Applications>Sound and Video>gtk-recordMyDesktop'. You should see a screen like the one in the screenshot (Fig 1). The user interface of recordMyDesktop is attractive but quite minimal. Hit the Record button. At this point the application window will disappear. Launch some applications such as a web browser to add some content to your recording.



■ Hit the Record button to begin recording

07 Stop recording video

Once you have recorded a few minutes' worth of footage, you should make recordMyDesktop stop recording. The application pane would have disappeared when you hit the Record button, so you will not be able to stop the recording from there. You will see a new item added to the right-hand side of the taskbar at the top of your screen. It will look like the one in the screenshot below. Hit that button and have it stop the recording. You will then see a window pop up as recordMyDesktop will begin encoding the recording.

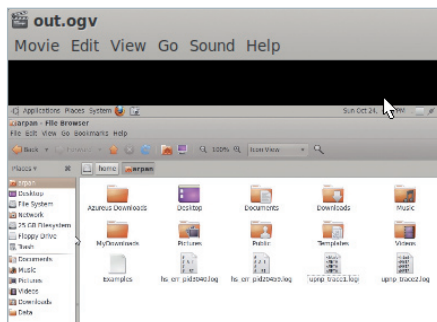


■ To stop recording, click on the app's icon at the top of your screen

08 Watch your test screencast

Once the processing is done, you can watch your first test screencast. Launch the file manager, Nautilus if you are using GNOME. You should be able to find the video file saved in

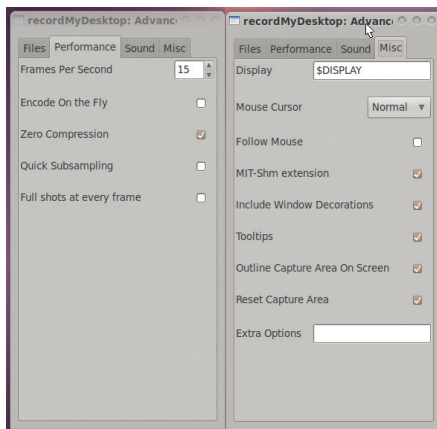
your user's Home folder with a .ogv file format. Double-click the file to watch it with the default video player. Congratulations, you've just created your first screen capture video. This was just a test, so you can delete the video file. Let's get cracking on our screencast now.



■ Watch the sample screencast recording in the Totem media player

09 recordMyDesktop settings

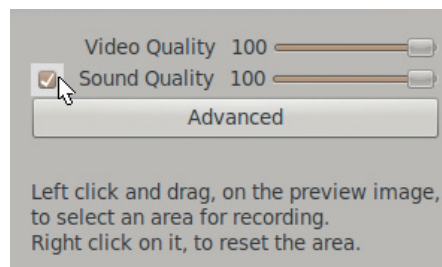
Once you have completed your first test recording, you can adjust any settings in recordMyDesktop if you need to. Hit the Advanced button on the main screen of the application. You can change a number of settings. For example, you can choose whether to include window decorations, how many frames per second the output movies should have, and which display to use (if you have several). Another very important set of options are on the main pane of the application. The first is the checkbox for enabling or disabling the video recording. The other is the 'Select Window' option. This allows you to pick a window and only record whatever is happening in that window in your screencast.



■ The settings screen for recordMyDesktop

10 The audio

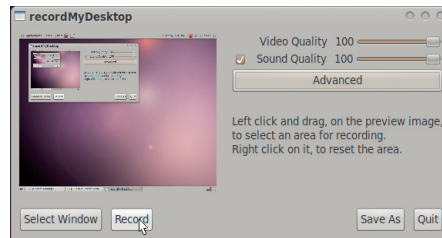
There are two ways you can approach the audio part of the screencast. You can either use the default audio capturing tool built into recordMyDesktop, or you can use a third-party piece of software to record the audio commentary separately and then merge it. Although you can get a lot more control over the audio elements using a third-party program such as Audacity, it can be rather tricky to get the timing perfect when you are recording the audio separately. So we'll stick with the built-in audio recording tool for now.



■ Check the Sound Quality box to have recordMyDesktop record the audio along with the video

11 Kick off the recording

Now that we have a storyboard for our screencast, and have a script and set of actions to be performed all written down and rehearsed, you should be ready to make the actual recording. Remember, that this isn't live TV – you can always scrap a recording and start again from scratch, so relax. Hit the Record button and begin executing the steps and reading out the rehearsed script as you perform the steps. Once you are done, hit the stop button at the top of your screen. Repeat the recording a few times till you get a result that you are happy with.



■ Hit the Record button to begin recording once you have set up everything as per your requirements

12 Pause

When you are recording a video, you can hit the stop button to end the recording process. However, there's another useful option for you to

“ This isn't live TV – you can always scrap a recording and start again ”

use. You can pause the recording and resume it when you want to. To access this option, right-click on the recordMyDesktop button in the taskbar at the top of your screen. Click on it again to resume recording. This option is particularly useful when you are recording a video wherein you want to skip a part of the task in the video. It could be a repetitive task or something that you just don't want users to see.



■ A paused recording

13 Video formats

By default recordMyDesktop saves your screencast as a .ogv format video. The videos will be saved to your home folder as out.ogv, out-1.ogv, out-2.ogv and so on. If you wish, you can use a video editor of your choice to make any required edits to your file. Not all video editors can handle Ogg video, but there are a multitude of tools available to convert to different formats within Linux. **For example, if you want to convert the out.ogv video to MPEG4 format, execute the following command:**

```
# mencoder -ovc lavc -oac copy -lavcopts vcodec=ffv1 -o video.avi out.ogv
```

If you want to do the same thing but have a compressed output, try the following:

```
# mencoder -ovc lavc -oac copy -lavcopts vcodec=mpeg4 -o video.avi out.ogv
```

14 Editing your video

Assuming you successfully converted your screencast from Ogg format to MPEG4, you can open the video in a number of video editors on Linux. Avidemux and Kino are two of our favourite Linux-based video editors. Use either to crop, fine-tune and improve your video. Export the video in a common video format when done.

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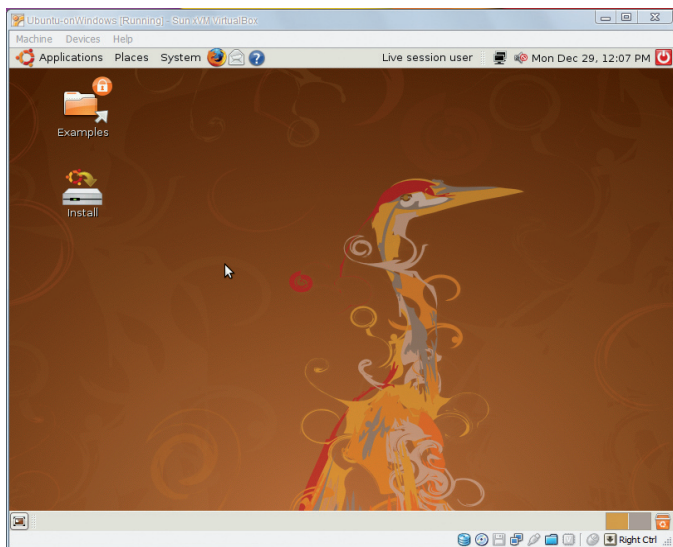


Fig 2 Virtual Machine Ubuntu running in a VirtualBox window



■ Kino is an excellent application for editing your screencast

15 Hosting

Whether you want to share the video screencast you just created with some friends or publish it on your website, hosting your screencast on a video hosting website is something we would highly recommend. There are several options such as YouTube, Blip and Vimeo. You can host the video there and share the URL with your friends, or embed the video into your website. Hosting with a party video host saves you bandwidth and makes things a lot smoother.

16 Virtual machine

A popular way to make screencasts is to use a virtual machine. There are several options of virtual machines on Linux these days: QEMU, VMware, VirtualBox, among others. Using these software packages, you can run pretty much any operating system or distribution of Linux. Virtual machines are especially useful when making screencasts showing people how to install an operating system (Fig 2).

17 Select recording area

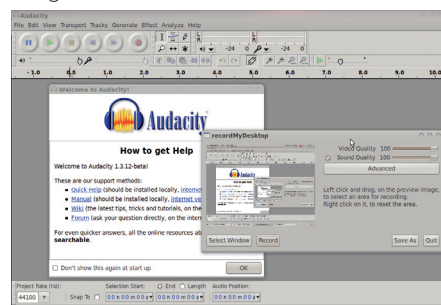
We mentioned that recordMyDesktop allows you to either shoot the entire screen or an application window. But there's a third option which allows you to use the mouse cursor and select a space on the screen which will be recorded. Right-click on the recordMyDesktop button on the taskbar at the top of your screen and select the option 'Select Area On Screen'. Then mark out the area you want to have recorded. recordMyDesktop will create a rectangular box demarcating this area. Hit the Record button to begin recording.



■ Mark out the area that you want recordMyDesktop to capture in the screencast

18 Recording audio separately

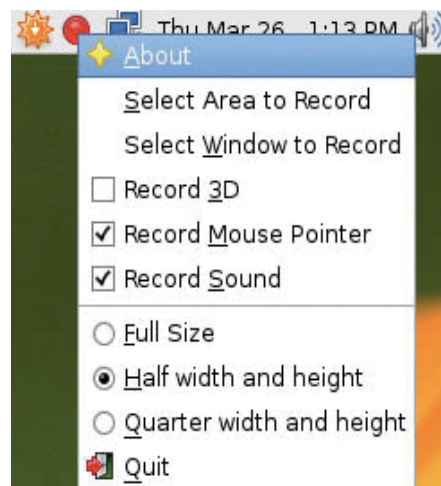
If you do not want to record both the video and audio using recordMyDesktop, you can always choose to get just the video captured by recordMyDesktop. In that case remember to uncheck the 'Sound Quality' option on the application's main screen. Use an audio recording application such as Audacity to record the audio. Then import the video and audio into a video editor such as OpenShot (www.openshotvideo.com) to integrate and edit them.



■ Audacity and recordMyDesktop make for a great combination when creating a screencast

19 Alternative software

In this article we looked at how to use recordMyDesktop to record the screencast, but there are a few other software options for you to check out if you like. vncrec, vnc2swf, and Istanbul are three alternatives. Istanbul (<http://live.gnome.org/Istanbul>) in particular is a great option as it is very simple to use.



■ Istanbul in action