Installation | qqX

9–12 minutes

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qqX - Quickemu Virtual Machine Manager

qqX will generally run straight 'out of the box' on the **vast majority of Linux distributions**

- Other virtual machine systems may be present on the host but they are not required
- Existing Quickemu/QuickGui installations are [fully compatible](#)

New users need only install qemu `spice-gtk` and qqX

- Quickemu users will already have the key dependencies installed
- Some distro versions may need `curl 7z jq bc` and possibly `xrandr`

Generally, no further software or dependencies should be needed.

- The qqX installer will warn you if anything crucial is missing

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To create Windows Virtual machines, you will also need `swtpm` and some distros may also need `mkisofs`

- Further detail notes towards the end of this help file

Linux standards

Users of **non**-standard OS's such as NixOS, should read [issue #1](#) and details on [Filesystem Hierarchy Standards](#)

- Further notes are in the installer script.
- Running qqX on **Windows** hosts has been partly implemented already via the Windows Linux Subsystem. This target will hopefully be possible when the new and even more capable Azure 3 WSL becomes mainstream. It should be noted that Microsoft, who not only host GitHub, have been Platinum members of the Linux Foundation for several years and that Linux now runs on the majority their Azure cloud servers. Early work with pre-release versions, in Windows Insider, has shown good promise.
- Basic support is available via Quickemu on **MacOS** hosts. However, for qqX, unless Mac change their stance towards Linux, this would need impossible code compromises.

Qemu

Qemu may be listed with various names:

- **Arch** users should install 'qemu-desktop' not qemu-base.
- **Debian** based distros may need several separate components to create the packages

Some users may see Qemu listed by architecture as in `qemu-system-x86_64` and `qemu-system-aarch64`

- Only 'x86_64' is needed unless you wish to emulate Arm etc ...

Spice

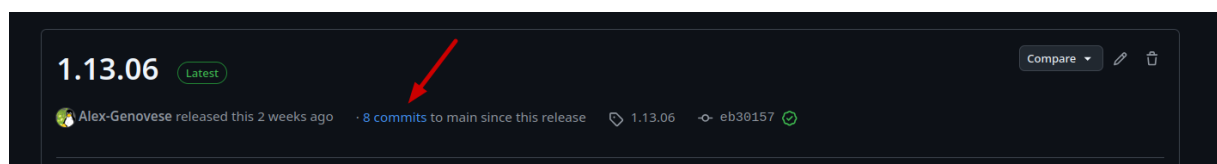Spice gtk may be listed as `spice-client-gtk`

Newer Ubuntu releases may need `qemu-system-modules-spice`

qqX Installation

Downloading

The standard download method is via the [latest qqX release](#) which will have been carefully tested.
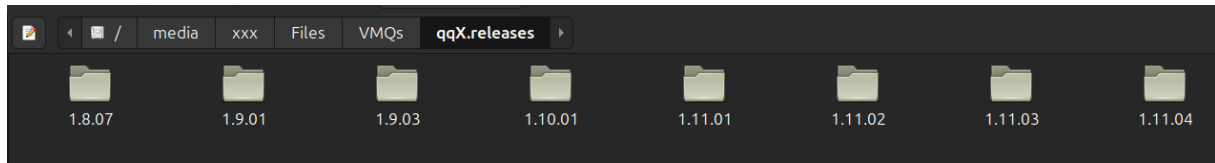
The main branch may also contain occasional updates. These will be noted at the head of the 'latest release' page and are usually minor tweaks or additions that need little testing but might be useful. Small pre-release urgent fixes may also be present.

For [branch](#) downloads, select the required branch, click on the 'code' button and 'download zip'.

- The normally present dev‑next branch is usually fairly stable but may be incomplete and may not have been fully tested
- Other branches, if present, may have experimental features or bug fixes

   Check the branch commits list before downloading

- Default Folders for the updater are ~/Downloads/qqX.releases and .../VMQs/qqX.releases but others may be used.

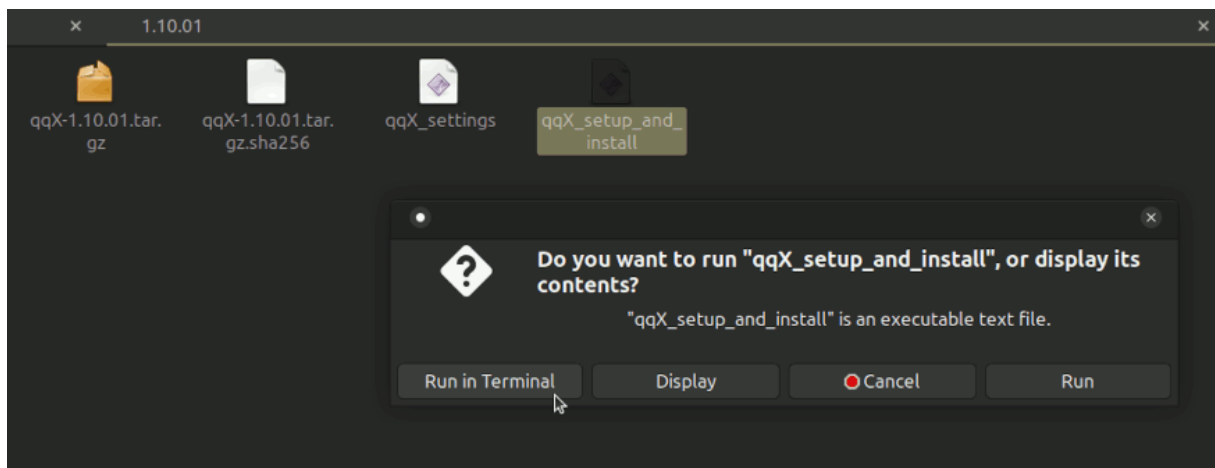   **Unpacking the compressed file**

   FOR MOST USAGE CASES

- Simply right clicking in a file manager and selecting extract or extract with ....

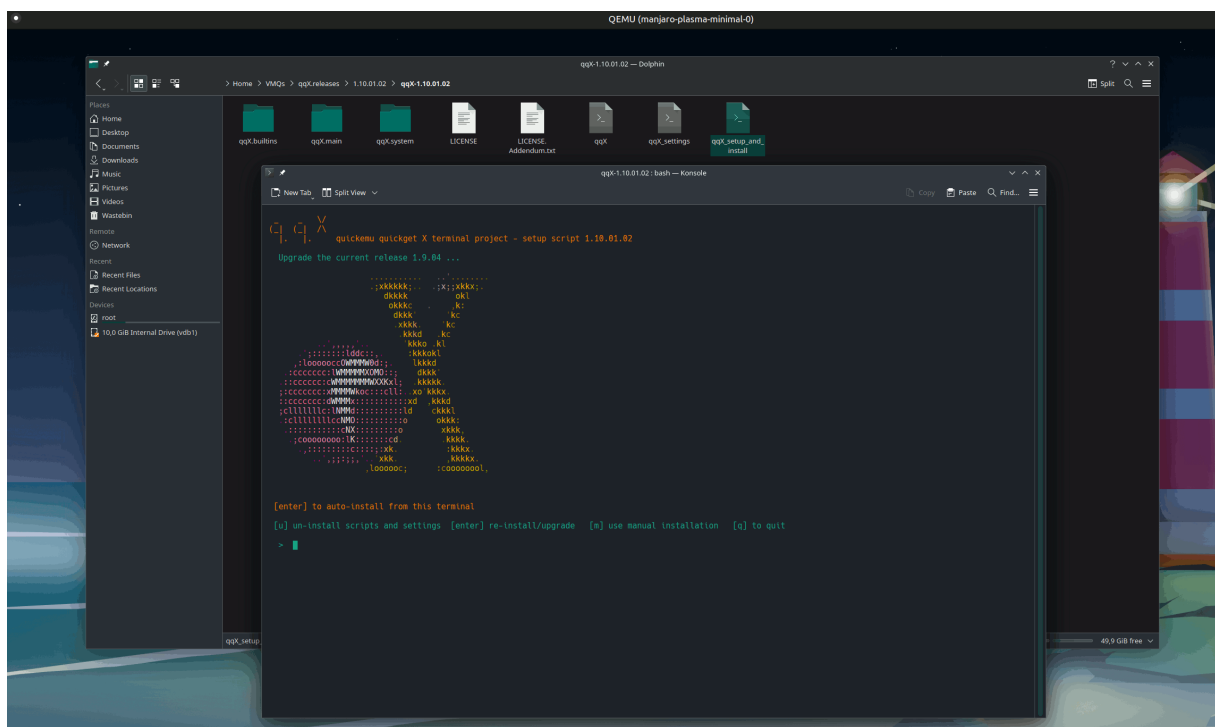   For the Cmd Line, see notes further on

   Running the installer

   In many file managers you can usually right click, then run as program, or similar.

- With Cinnamon and Mate, double click and 'run in terminal'

- In KDE/Dolphin, use 'run in konsole' or double click and execute.
- Also with Thunar, if the run scripts preference has been set.
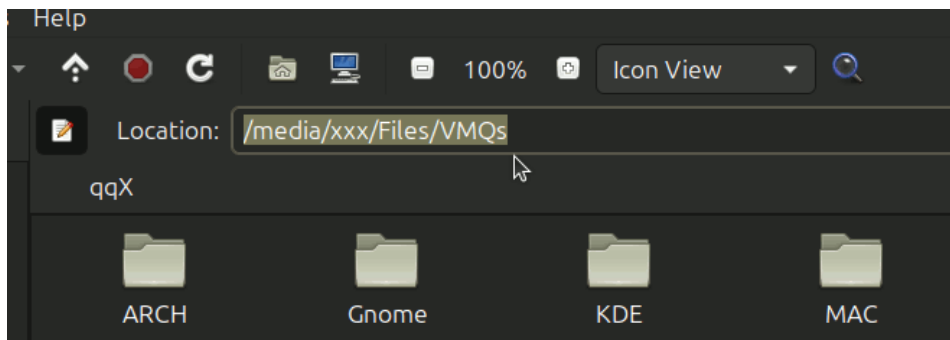

   In other environments it may be necessary to start the installer script by opening a terminal first.

- In the file-manager folder > right click > open in terminal > type ./qqX_setup_and_install ~ note prefix ./

Default VM folder

- If you have existing *quickemu* virtual machines, start qqX and edit the settings file to point to where they are.

- 'VMQs' is the standard default, in your Home folder, next to Downloads & Videos.

- Moving or renaming the default folder can be easily done using your file manager. Start qqX and edit the settings to point to it.

First Machines

If everything appears to be working correctly, you can start exploring ...

- Installing a basic or familiar Linux distro will help tell you if Qemu and the sub-structure is working.

Updates

An auto-detector will tell you if new a qqX release is available.

- The qqX installer can be used to *update, reinstall, uninstall or reconfigure*.

Other Notes

Cmd Line

For non-gui installation, create a `qqX.releases` folder and a subfolder numbered as per the release. Move the tar.gz file into the subfolder and extract as so:

```
mkdir -p "$HOME/Downloads/qqX.releases/1.11.04"

mv qqX-1.11.04.tar.* "$HOME/Downloads/qqX.releases/1.11.04/"

cd "$HOME/Downloads/qqX.releases/1.11.04"

sha256sum -c qqX-1.11.04.tar.gz.sha256
qqX-1.11.04.tar.gz: OK

tar xvfz qqX-1.11.04.tar.gz
```

Adjusting the terminal

qqX will test and setup most standard desktop associated terminals without problem.

To MANUALLY SPECIFY the terminal name, the installer script's 'UserTerm' variable may be edited.

- Open the script in a standard text editor. From Version 1.11 this is located at the start of the script.

From qqX version 1.10.02 onwards, a 'CustomTerminalProfile' will now be stored in the qqX settings folder. This file will be checked and auto-read when carrying out updates. The (hidden) file '$HOME/.qqX/qqX_term.conf' may also be edited.

MAKE SURE to SELECT option `[r] reconfigure desktop launcher` during installation, if changing the terminal command

Profile options

It is quite common for different distros to rename or tweak a standard terminal. Typing the terminal name, followed by '--help' should give you a list of the parameters that you can use. Note that options can vary slightly and can also be subject to theming or desktop environment overrides.

For actual 'XTERM' itself, also edit the installer script's 'CustomTerminalProfile' eg xterm -geometry 145x50 -fa truetype -fs 12

For CUSTOM PROFILES, only one profile line is required and the actual sizes are best stated. Auto-updating size variable lines are difficult to set, due to 'escaping' routines, but may be initially be copied, if wished. Size variables will eventually become overwritten as numerics.

eg. CustomTerminalProfile=" --geometry=145x50 --hide-menubar --title=qqX "

Remember that width and height are normally column/row units which are based on the size of your terminal font and that the window size will alter when the font size is changed.

- CUSTOM terminal sizes & profile may be *initially* set just after the initial system checking lines, at around line 290 in the target script "./

qqX_system_install" in the qqX.system folder. See notes in the target script.

- OR may be adjusted in the qqX config file following initial setup, which is possibly easier.

Tips

If you you are finding the interface a bit cramped, re-run the installer. Make sure to **run the desktop part** which will allow you to adjust the terminal size.

Multiple folders can help organise your distros. After adding a new group folder, make sure that it's present in the general settings file.

Virtual machines can be easily moved around. Use the move and rename tool [mv] to make things even easier. Make sure that they have their .conf file next to them and make sure the *config internals* point correctly.

You can edit which VMs to show first in the general settings.

Uninstalling

- Re-run the installer and select to remove ...

- To downgrade, using the installer from an earlier release will normally work without the the need to uninstall first.

Further notes are in the installer script itself.

Other Software

- `7z` is sometimes listed as 7zip or p7zip-full and `xrandr` may sometimes be found as part of x11-xserver-utils

- **Fedora** does not have Zsync but this is non-critical as Quickget will switch to using Curl

- On **Solus**, *quickemu* won't currently run in UEFI mode, so no Windows 11 for now. See this [Solus issue.](#)

- Support for SDL with **OpenSUSE** is patchy at best

- Grabbing https://software.opensuse.org/package/SDL3 and https://software.opensuse.org/package/qemu-ui-sdl *might work* with certain versions > Select the file and open in Yast, then search sdl with the files option selected ...

- Immutable/atomic systems [may not allow](#) installations ....

Mk ISO FS

A lot of distros will already have `mkisofs` already installed as a dependency to other software. Ubuntu installs this with the `genisoimage` package. Arch users will usually need to add `cdrtools`. Fedora Gnome should have this already but Fedora KDE will require `xorriso`. Others may require `cdrkit`.

This is currently only needed to assemble the Spice `unattended` Iso, used for setting up Windows VMs.

TPM

This is needed for Ubuntu Server and for installing Windows guests

Ubuntu 24.04 LTS at 01/2025 is three versions behind for `swtpm`

- This PPA may be used: https://launchpad.net/~stefanberger/+archive/ubuntu/swtpm-noble

There is an on-going `swtpm / apparmor` [problem](#) too. Your mileage may vary.

- One way to fix this is to change swtpm settings from 'enforce' mode to 'complain'. See these [apparmor notes.](#)

Simplified GUI installers such as Gnome Software and KDE Discover may not list `swtpm`

Command line use of apt or dnf etc may be needed

Also see the [Windows Walk-thru guide](#) for notes on Secure Boot

Older or LTS distros

Some distros can be a long way behind the curve and older QEMU versions may show occasional error messages.

- Ubuntu 22.04 can show `gui-module ui-ui` errors but tests seem to show these can be ignored.

Finally

By using this software you become a valued member of the community and can help make this software better for others.

Please report any difficulties or any unnoticed errors you may have encountered.