

# Alpine Linux

Notes and observations for setting up and maintaining systems.

## 3.16 Desktop setup

With the release of 3.16.0 came new tools, `setup-desktop` and `setup-user`, which prepare the system to be used graphically and by a non-root user. I noticed some weirdness the first time I tried, so I'm documenting my efforts to reproduce here in an attempt to aid eventual bug reports.

### Sony Vaio VGN-P11Z/Q

[Main page for this device](#)

This was the machine I first attempted this on, and where I noticed some issues. This machine is a 32-bit-only Intel Atom Z520 system, with an InsydeH2O "UEFI Ready BIOS", with 2GB of RAM. I used the `alpine-3.16.0-extended-x86.iso` image.

From boot, I ran `setup-alpine` as root, and did the following:

- Set keymap to `gb gb-intl`
- Set the hostname
- Set `wlan0` as my interface
  - It was here that I noticed it didn't request my WiFi password after I'd input my SSID, so once it set up `wpa_supplicant`, I exited and reconfigured `wpa_supplicant.conf`, replacing `key_mgmt="NONE"` with `psk="my psk"`. I then restarted `setup`, choosing none instead of configuring an interface.
- Declined to do any manual network configuration
- Set the root password
- Set the timezone to Europe/London
- Declined to set a proxy
- Set the APK mirror to the first in the list, `dl-cdn.alpinelinux.org`
- Set up a user with username `maff`, accepting the default full name of `maff`, with a password, no SSH key
- Selected `openssh` as the SSH server
- Selected `sda` as the disk to use as `sys`, and confirming when prompted that I'd like to wipe the drive

After installation completed, I rebooted.

On first boot of the installed system, I logged in as root and immediately ran `setup-desktop`. I selected `xfce` and rebooted once it was complete.

After rebooting and being presented with the `lightdm` login screen, I attempted to log in as the unprivileged user `maff` I had created, however the X server simply exited and restarted, and I was again presented with the login screen.

I switched to `tty1` and began tailing all available log files, then switched back to `tty7` and attempted a login again. Switching back to `tty1`, I discovered two things:

- Linux Kernel releases after 5.9 no longer support `fbcon/vgacon` scrolling via `shift-page{up,down}`, because apparently there's never in the modern world a case where you'd have access only to a framebuffer or VGA console and need to view many lines of text on screen within a very minimal system. I guess Linux from Scratch just got harder. I worked around this careless decision by piping my `tail` command into `less`, which worked but scrolling one single line up or down took a full calendar second to happen.
- `/lib/security/pam_elogind.so` failed to be loaded, and so the login fails.
  - This later turned out not to be the problem, although I feel as though `elogind` being configured in `lightdm` but not installed is probably a bug in and of itself.

I installed `elogind` after verifying that package was the source for the missing file, and attempted to log in again, however I found logins were still failing. At this point, I noticed that the session was starting, and errors were to be logged to an `.xsession-errors` file, but `find / -name .xsession-errors` turned up `bupkis`. I assumed this file might simply have a discriminator at the end of the name after the X server exits, so I went to look in `/home/maff` to see, but lo, `/home` was barren.

I created `/home/maff` and set ownership on it correctly, then attempted to log in graphically again, and this time I was able to.

## **QEMU VM with i686 processor, 2GB Memory, 8GB HDD, no UEFI, booting alpine-3.16.0-standard-x86.iso**

Following the exact sequence of events as above, I replicated all issues I observed on the Vaio, with the exception of WiFi because I wasn't in the mood to emulate a wifi adaptor.

This time around, I created `/home/maff` before attempting to install `elogind`, and found that logins succeed without `elogind` being installed. I'm not sure what purpose `elogind` actually serves in this case, but an error is still logged about it, so either the `setup-desktop` script should install `elogind`, or `lightdm` should not be configured to load it.

## **QEMU VM with x64 processor, 2GB Memory, 8GB HDD, UEFI, booting alpine-3.16.0-standard-x86\_64.iso**

I followed the exact same steps again, however this time I noticed that after specifying that I wanted to use `/dev/sda` as a 'sys' volume, the error `/sbin/setup-disk: line 1599: [ -z: not found` was printed. Installation nonetheless completed without issue.

I observed that again I couldn't log in, and I again created the `/home/maff` directory without installing `elogind`, confirming that it worked.

## **QEMU VM with i686 processor, 2GB Memory, 8GB HDD, no UEFI, booting alpine-3.16.0-extended-x86.iso**

This process was identical to using the 'standard' ISO, including all observed issues.

## **QEMU VM with x64 processor, 2GB Memory, 8GB HDD, UEFI, booting alpine-3.16.0-extended-x86\_64.iso**

This process was identical to using the 'standard' ISO, including all observed issues.

### **3.16 Bug reports**

setup-user does not create user's home directory

setup-desktop does not install elogind (possibly intentional, but..)

setup-disk syntax error on line 1599 when booted via UEFI (looking at the code I don't actually see why it's a syntax error but the specific error is that it's trying to execute [ -z as a command, so maybe there's a weird unicode space or something)

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