Musescore Screen Rendering

Environment:

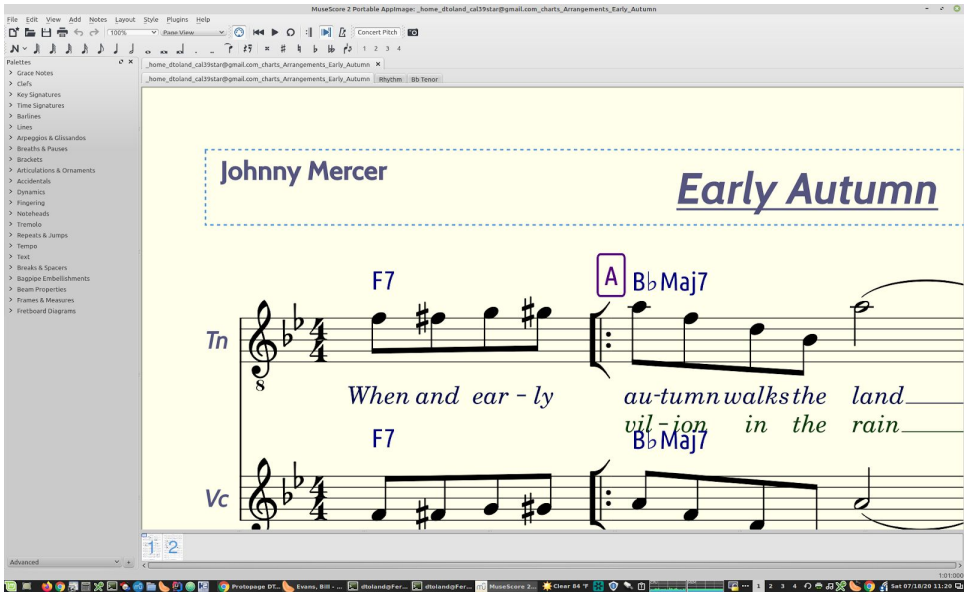
```
System:    Host: Fermata Kernel: 5.3.0-62-generic x86_64 bits: 64 compiler: gcc v: 7.5.0
           Desktop: Cinnamon 4.4.8 wm: muffin dm: LightDM Distro: Linux Mint 19.3 Tricia
           base: Ubuntu 18.04 bionic
Machine:   Type: Desktop System: ASUSTeK product: CM6870 v: N/A serial: <filter>
           Mobo: ASUSTeK model: CM6870 v: Rev X.0x serial: <filter> UEFI: American Megatrends
           v: 0408 date: 02/24/2012
CPU:       Topology: Quad Core model: Intel Core i7-3770 bits: 64 type: MT MCP arch: Ivy Bridge
           rev: 9 L2 cache: 8192 KiB
           flags: lm nx pae sse sse2 sse3 sse4_1 sse4_2 ssse3 vmx bogomips: 54277
           Speed: 1596 MHz min/max: 1600/3900 MHz Core speeds (MHz): 1: 1597 2: 1596 3: 1596
           4: 1596 5: 1596 6: 1596 7: 1596 8: 1596
Graphics:  Device-1: NVIDIA GF119 [GeForce GT 620 OEM] vendor: ASUSTeK driver: nvidia v: 390.138
           bus ID: 01:00.0 chip ID: 10de:1049
           Display: x11 server: X.Org 1.19.6 driver: nvidia
           unloaded: fbdev,modesetting,nouveau,vesa resolution: 1920x1200~60Hz, 1920x1080~60Hz
           OpenGL: renderer: GeForce GT 620/PCIe/SSE2 v: 4.6.0 NVIDIA 390.138 direct render: Yes
Audio:     Device-1: Intel 7 Series/C216 Family High Definition Audio vendor: ASUSTeK
           driver: snd_hda_intel v: kernel bus ID: 00:1b.0 chip ID: 8086:1e20
           Device-2: NVIDIA GF119 HDMI Audio vendor: ASUSTeK driver: snd_hda_intel v: kernel
           bus ID: 01:00.1 chip ID: 10de:0e08
           Device-3: C-Media CMI8788 [Oxygen HD Audio] vendor: ASUSTeK Virtuoso 100
           driver: snd_virtuoso v: kernel bus ID: 05:04.0 chip ID: 13f6:8788
           Device-4: Logitech type: USB driver: snd-usb-audio,uvcvideo bus ID: 3-3:3
           chip ID: 046d:0891
           Sound Server: ALSA v: k5.3.0-62-generic
Info:      Processes: 389 Uptime: 2d 20h 13m Memory: 31.32 GiB used: 15.80 GiB (50.5%)
           Init: systemd v: 237 runlevel: 5 Compilers: gcc: 7.5.0 alt: 5/7
           Client: Unknown python3.6 client inxi: 3.0.32
```

Monitors:

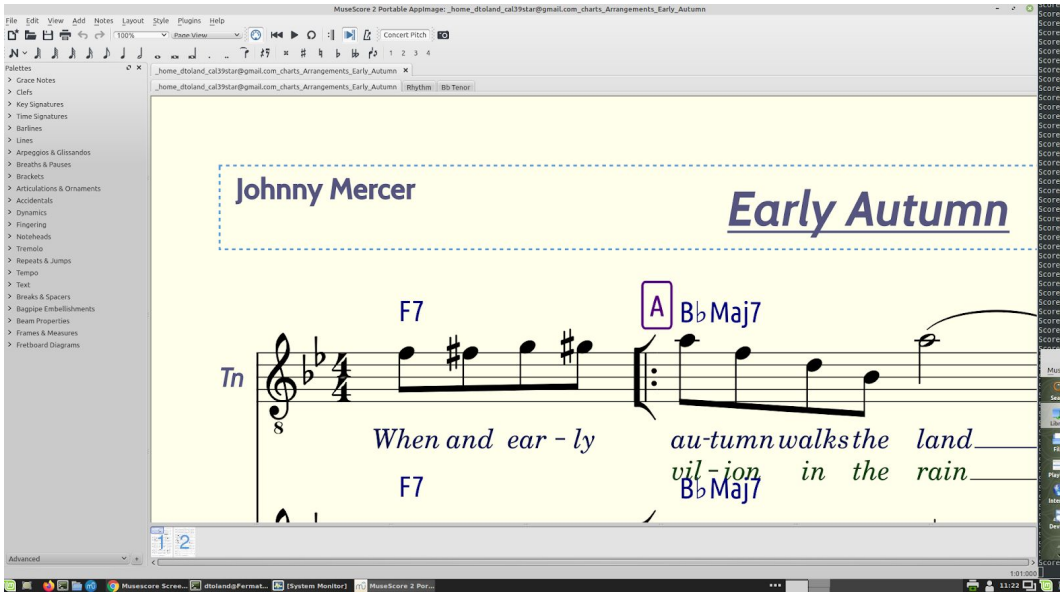
Samsung SyncMasterT240HD - Resolution 1920 x 1200 connected via DVI
Samsung U28D590D - Resolution 1920 x 1080 connected via HDMI

MuseScore-2.1-x86_64.AppImage:

Samsung SyncMasterT240HD - Resolution 1920 x 1200 connected via DVI

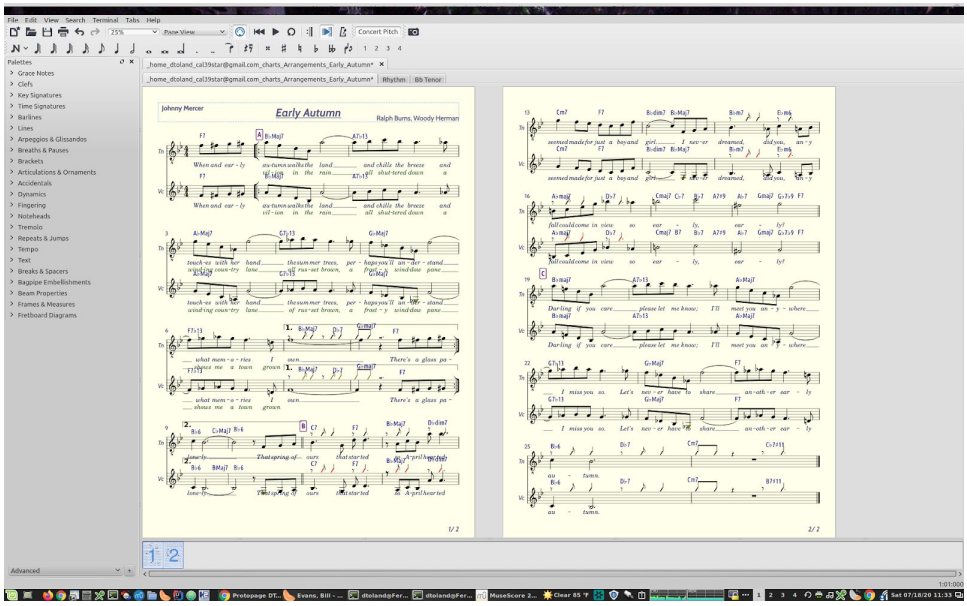


Samsung U28D590D - Resolution 1920 x 1080 connected via HDMI

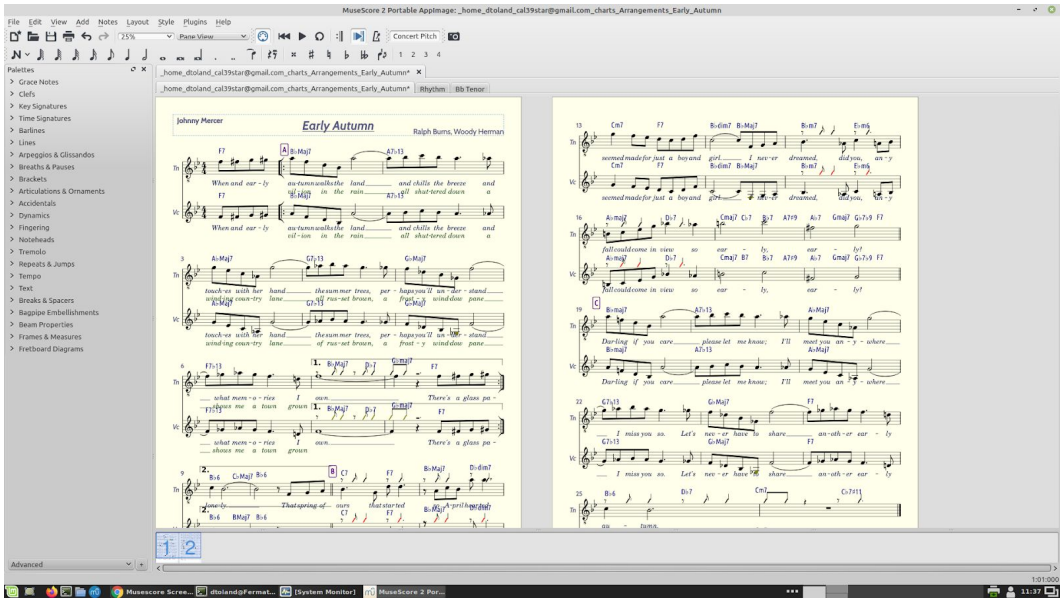


Zoom 25%

Samsung SyncMasterT240HD - Resolution 1920 x 1200 connected via DVI



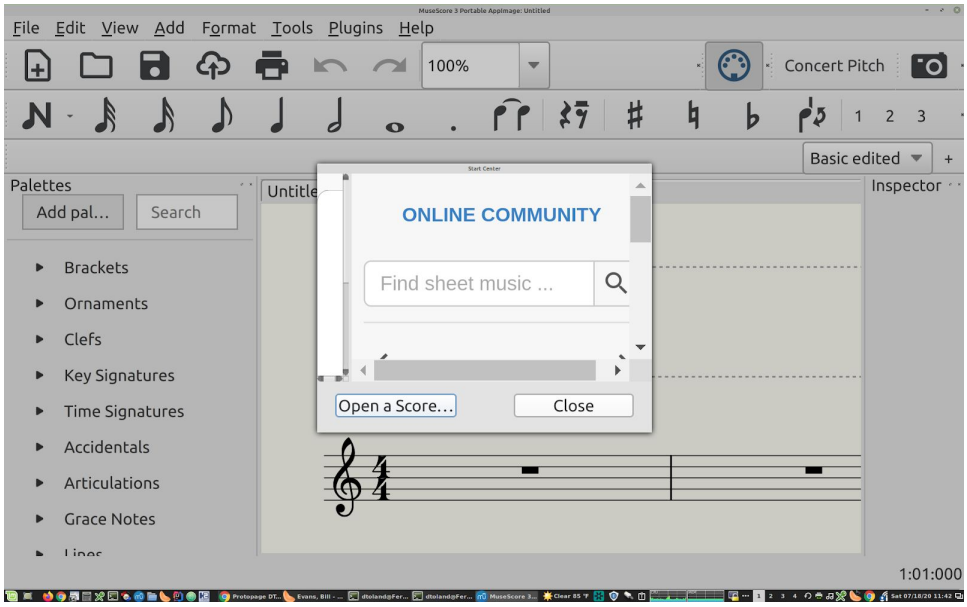
Samsung U28D590D - Resolution 1920 x 1080 connected via HDMI



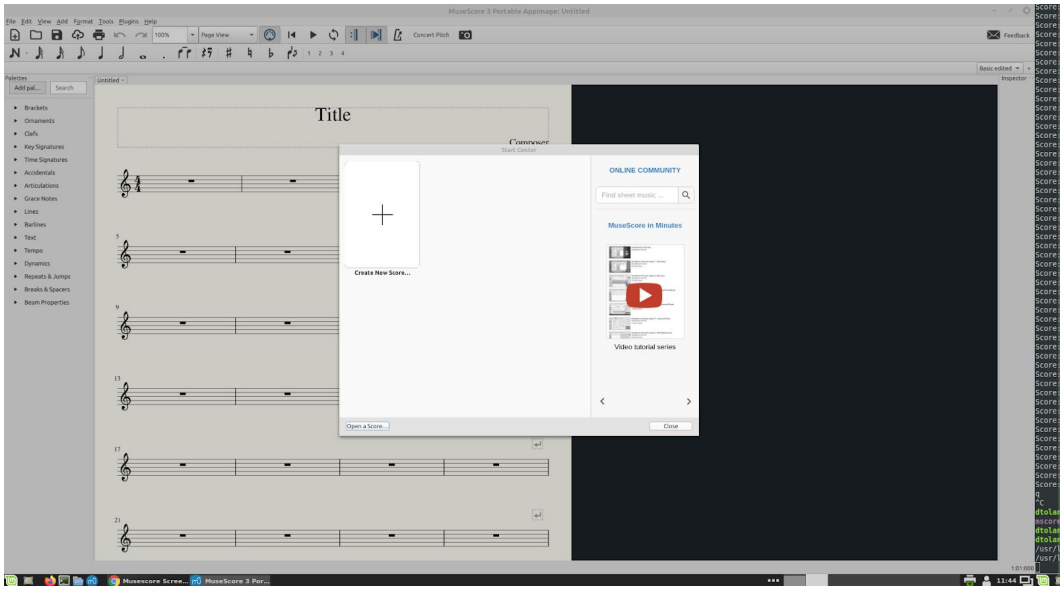
Ver. 2 is usable with the zoom set to 25%. Dialogs, fonts and control regions seem to work ok.

MuseScore-3.4.2-x86_64.AppImage

Samsung SyncMasterT240HD - Resolution 1920 x 1200 connected via DVI



Samsung U28D590D - Resolution 1920 x 1080 connected via HDMI

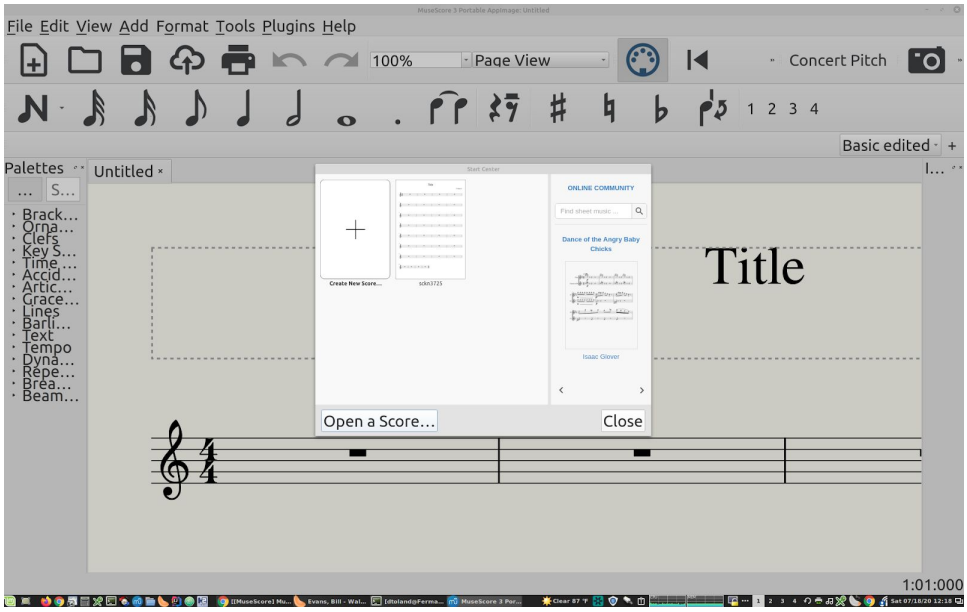


Notice the difference between the two monitors in ver. 3. The U28D590D actually has the higher pixel density.

MuseScore-3.4.2-x86_64.AppImage

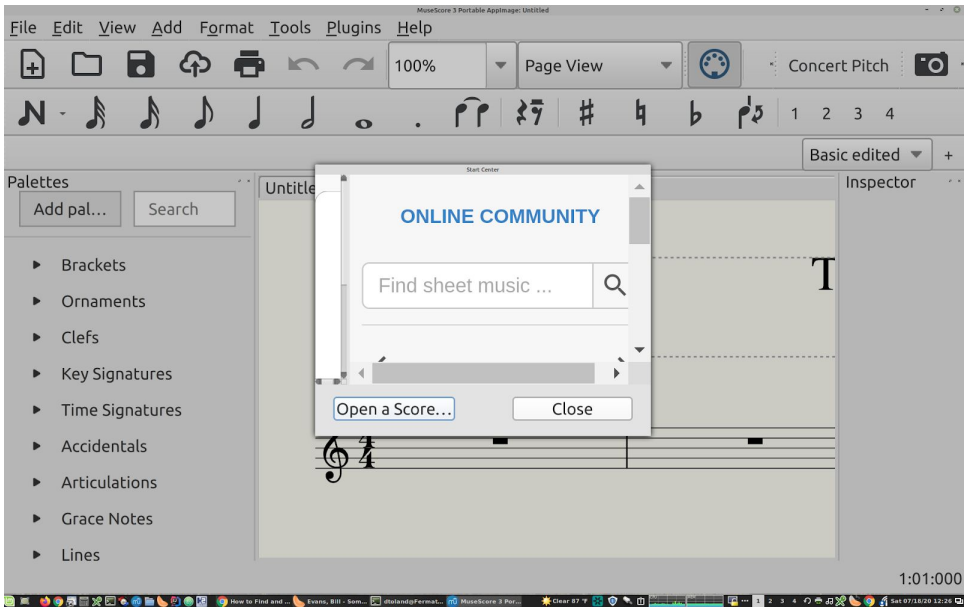
Samsung SyncMasterT240HD - Resolution 1920 x 1200 connected via DVI

QT_AUTO_SCREEN_SCALE_FACTOR=0



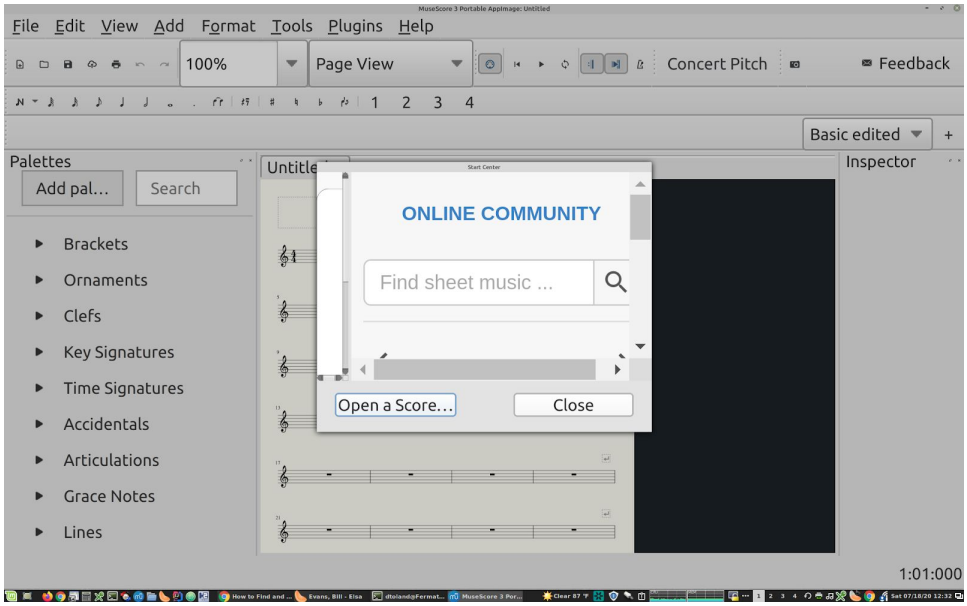
Tamed the dialog box size, but worsened all the main window screen controls, id buttons, pallet menu.

```
$ xdpyinfo | grep -B 2 resolution
screen #0:
  dimensions:    3840x1200 pixels (1016x318 millimeters)
  resolution:    96x96 dots per inch
$ ./MuseScore-3.4.2-x86_64.AppImage -D 96
```



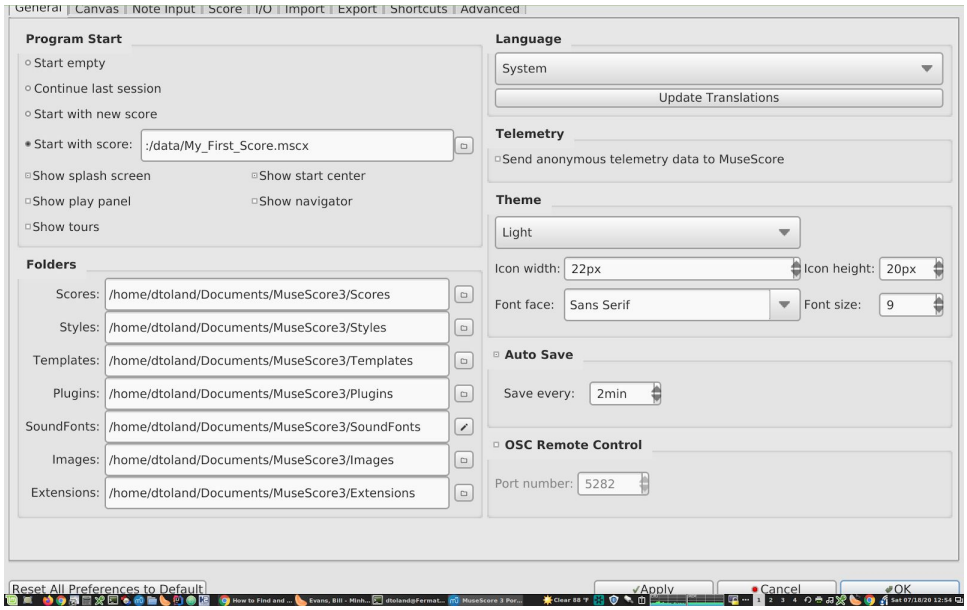
No apparent difference from no-arg execution

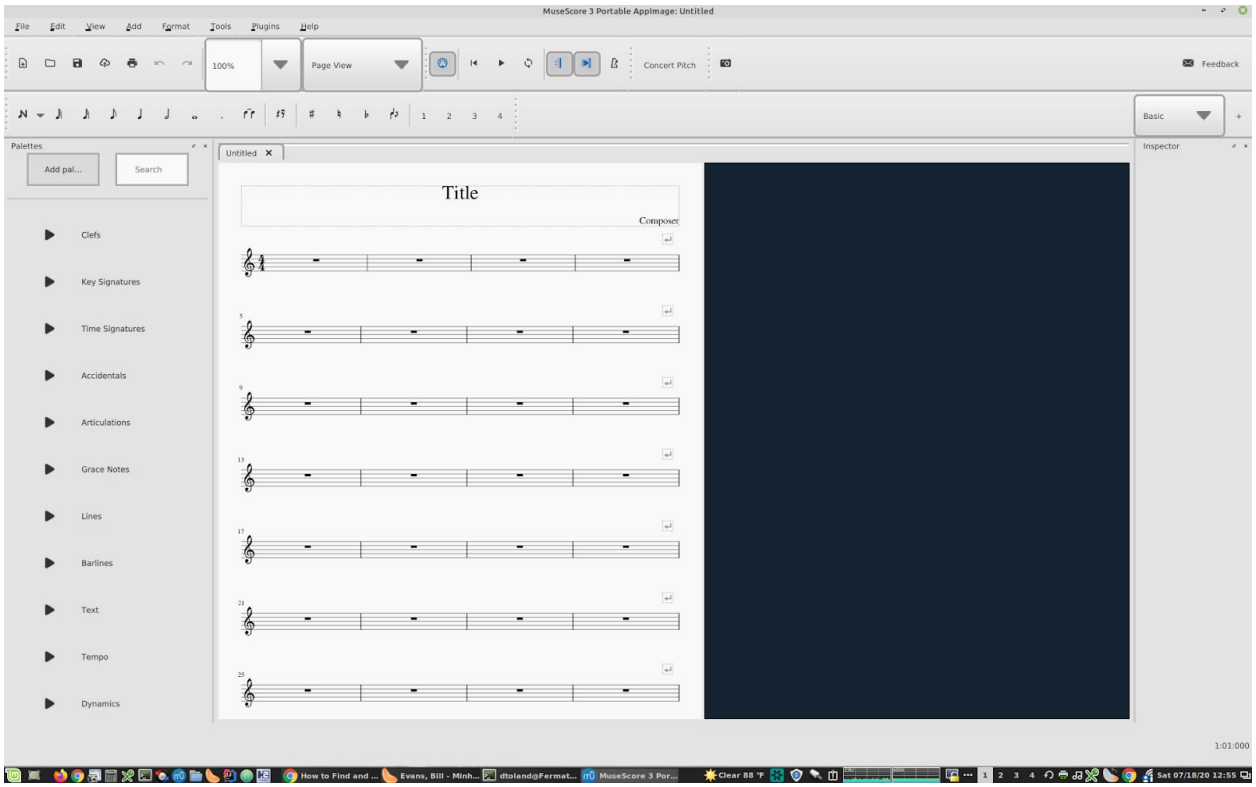
```
./MuseScore-3.4.2-x86_64.AppImage -D 30
```



Interestingly, the editor is close to a usable size, but dialog boxes and screen controls are still huge.

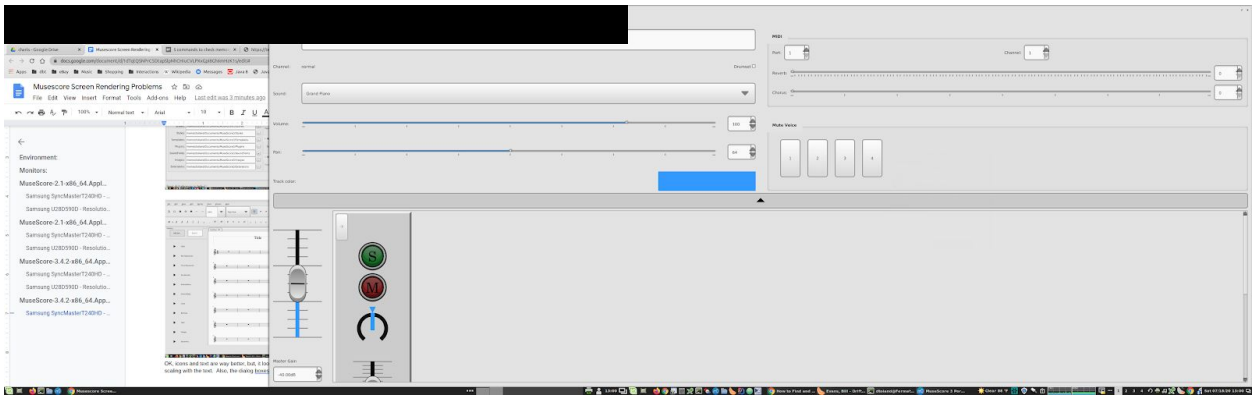
```
./MuseScore-3.4.2-x86_64.AppImage -D 30
Changing preferences: icon width from 28 to 22, icon height from 24 to 20, font size
from 18 to 9.  Note size of dialog box and control graphics mismatch on the
preferences dialog.
```





OK, icons and text are way better, but, it looks like the control regions sizes are hardcoded, they are not scaling with the text. Also, the dialog boxes sizes are not scaled....

Here is the mixer. Can't even display it on one monitor. This screenshot shows both my monitors, with the mixer overlapping the 2nd monitor by over 50% horizontally.

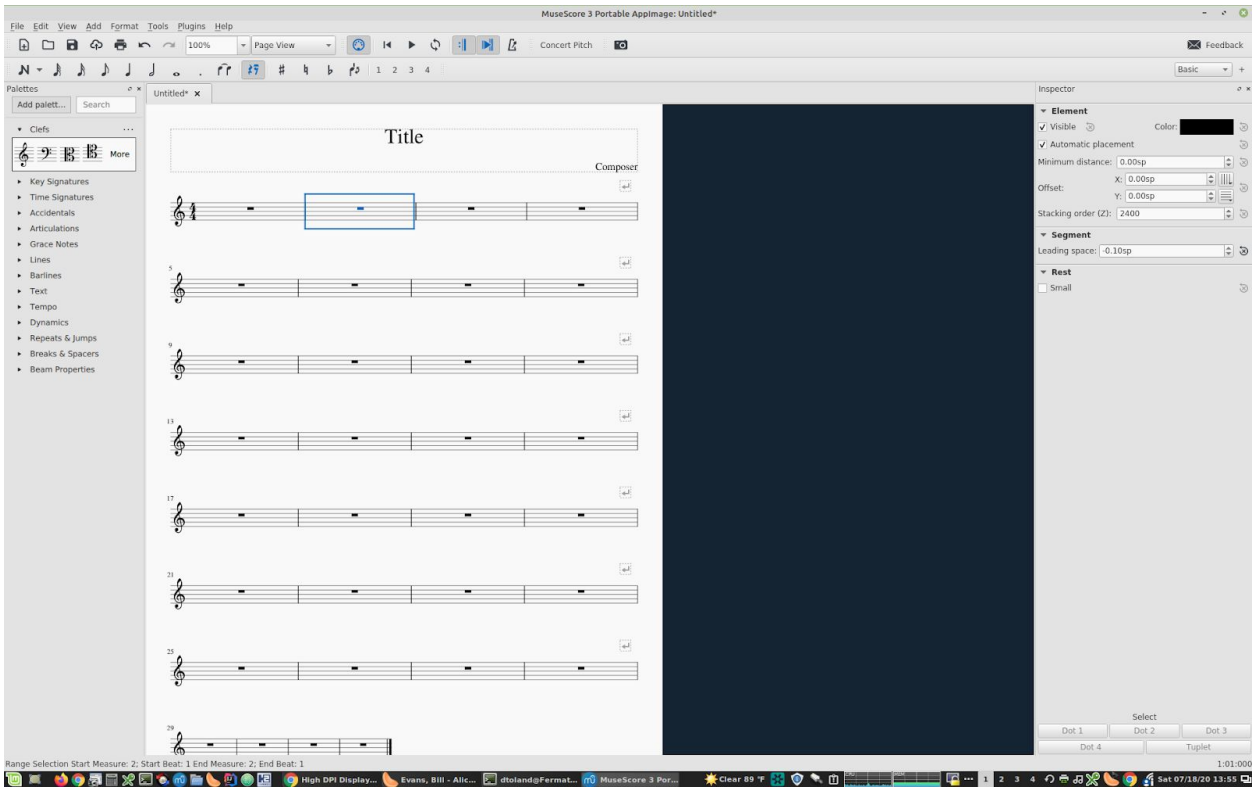


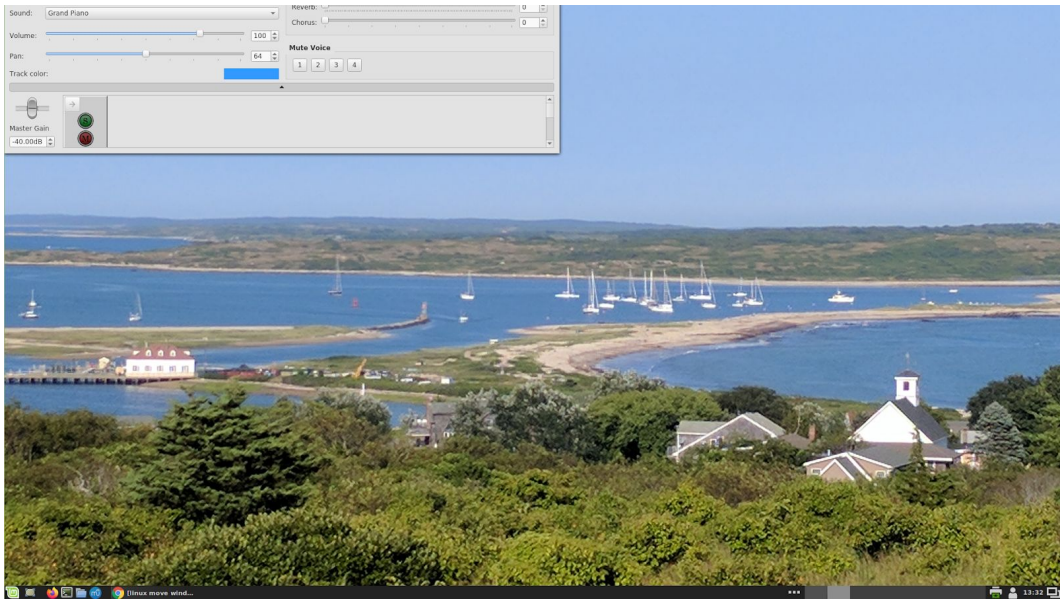
OK, here is my final attempt, using *ALL* the tweaks. Got something that appears to be usable

```
$ env | grep QT
QT_ACCESSIBILITY=1
QT_AUTO_SCREEN_SCALE_FACTOR=0

## with QT env set, able to use dpi scaling factor instead of '30'
$ ./MuseScore-3.4.2-x86_64.AppImage -D 96

Reset icon sizes to default, but leave font size changed to 9.
```





Even the dialog box for the mixer is under control. However, it does open in the left-most monitor and draws part of itself, including the title bar, off the screen. It has no tray icon and cannot be seen by Metro, which means switching to that monitor, and using Alt+F7 to move it. This is very annoying for every dialog open and I am usually using that monitor for another system. Also, if a scrollable area gets focus, I cannot move it with Alt-F7, I have to stop Musescore and try again.

Summary

This is a lot of trial and error troubleshooting to get this application scaled. I have worked this problem for many hours in the past, but addition of the QT env variable finally got me to a spot that was usable. These problems should be prominently documented, not in the off eddy of some message board post. You also need to refine your screen and control scaling techniques. I am not a QT developer, but I use other QT apps that do not put me through this. You should get some high-density monitors for testing. https://doc.qt.io/qt-5/highdpi.html

Opening on the left-most monitor instead of the default monitor is highly annoying, but many other apps seem to have that problem, but not all. It may be a Cinnamon issue.