

Xdmx

Networked Multi-monitor

Why is it good

- Use any notebook as a spare screen
- Works over the network wired or wireless.
- Re-use old notebooks as extra screens

Installation

Install the following on the host and client(s)

```
sudo apt-get install xdmx openbox xserver-xephyr xorg ssh
```

xdmx	Networked Multi-monitor tool
openbox	lightweight WM to test with
xserver-xephyr	nested X server
xorg	display server
ssh	secure shell

Test locally

First step is to test this ability locally

Terminal #1

```
Xephyr :3.0 -ac -br +xinerama -screen 600x400 &  
Xephyr :4.0 -ac -br +xinerama -screen 600x400 &  
Xdmx :5 -display :3.0 -display :4.0 +xinerama
```

Terminal #2

```
export DISPLAY=:5  
openbox
```

Test with chromebook

Setup host

- Allow tcp in your desktop manager Add the following to /etc/lightdm/lightdm.conf under [Seat:*]

```
xserver-allow-tcp = True
```

- Restart lightdm

```
sudo service lightdm restart
```

- Login to XFCE
- Verify that X is running with 'listen tcp'

```
ps -wax | grep "listen tcp"
```

Login Chromebook

1. Boot & login
2. hit alt+ctrl+t to load crosh tab
3. Enter the shell and start xfce4

```
shell  
sudo enter-chroot startxfce4
```

Setup Chromebook

Make sure your chromebook has Linux installed through **Crouton**

- Connect to Host from the client

```
ssh -X map7@<HOST IP ADDRESS>
```

- Find the remote display

```
echo $DISPLAY
```

Note down the display address (usually localhost:10.0) for use in the Xdmx next.

Start Xdmx

```
startx -- /usr/bin/Xdmx :1 +xinerama -display :0.0 -display localhost:10.0 -norender -noglxdproxy
```

Options explained

:1	Use Virtual Screen :1
+xinerama	Span the desktop
-display :0.0	Use clients display
-display :10.0	Use the ssh X display
-norender	disable RENDER extension
-noglxdproxy	display OpenGL
-ignorebadfontpaths	Needed if it cannot find fonts

Limits

- I cannot play videos / anything that uses OpenGL
- Only certain windows managers work (XFCE works)
- Little slow over wireless but only for the wireless screens.
- Cursor is invisible on chromebook
- Any programs you were running will be lost until you exit Xdmx
- Sometimes the WM in the background grabs focus - Really annoying!
- Slow, but not unusable slow.

Tips

- Use Openbox on the host before connecting using xfce (Saves keybinding issues).
- Use a lightweight WM
- For wireless make sure there isn't much traffic

References

- [A Poor Man's Multi-Monitor Setup On A Single Physical Head](#)
- [DMX Homepage](#)
- [Use an old laptop as a second monitor with Xdmx - YouTube](#)

Conclusion

This would be good for;

- programming camps for a portable extra screen
- more screens without extra graphics cards

If it worked properly

Questions

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