WSL with desktop

> ⓘ **Under Construction**
>
> Not sure this works on 2.0.14 - be warned

UPDATED/REFRESHED AS I HAVE TIME

> ⓘ **Background**
>
> Couple approaches to getting GUI apps
>
> 1. WSLg (works well for individual apps integrated on the Windows desktop)
> 2. RDP
> 3. X Windows
>   a. WSLG
>   b. X Server running laptop host
>   c. There are a couple of Windows store options which will accomplish this (limited testing)
>
> While individual applications is the normal use case, the optimal outcome here is to present an entire linux desktop (KDE, GNOME, Xfce, etc) - I'm working RDP via xrdp running on the WSL instance. One advantage of RDP is multi-monitor support.

This testing is done using Ubuntu 22.04 LTS with systemd enabled (currently the default) on a Surface Laptop 4. I have heard some reports of issues on select DELL issues connecting to XRDP.

Desktop environment is a matter of choice although resource utilization should be considered (using a more lightweight DE may be a better choice). LXDE, LXQT, and Xfce are normally considered 'lightweight'. GNOME, KDE, etc. generally use more resources (but tend to be prettier/more modern).

> ⚠ All of these depend on using the wsl-vpnkit image for network connectivity on the VPN - please see the WSL install docs for reference

Steps Common to All DEs - RUN THESE FIRST

```
sudo apt-mark hold acpid acpi-support
sudo apt update && sudo apt upgrade -y
sudo apt -y install xrdp
sudo cp /etc/xrdp/xrdp.ini /etc/xrdp/xrdp.ini.bak
sudo sed -i 's/3389/3390/g' /etc/xrdp/xrdp.ini
sudo sed -i 's/max_bpp=32/#max_bpp=32\nmax_bpp=128/g' /etc/xrdp/xrdp.ini
sudo sed -i 's/xserverbpp=24/#xserverbpp=24\nxserverbpp=128/g' /etc/xrdp/xrdp.ini
```

Edit /etc/xrdp/startwm.sh

```
sudo nano /etc/xrdp/startwm.sh
```

Replace the last 2 lines with the lines below, and uncomment the correct desktop environment from the list

```
unset DBUS_SESSION_BUS_ADDRESS
unset XDG_RUNTIME_DIR

#test -x /etc/X11/Xsession && exec /etc/X11/Xsession
#exec /bin/sh /etc/X11/Xsession

#uncomment the correct DE below
#budgie-desktop
#cinnamon-session
#mate-session
#startxfce4
```
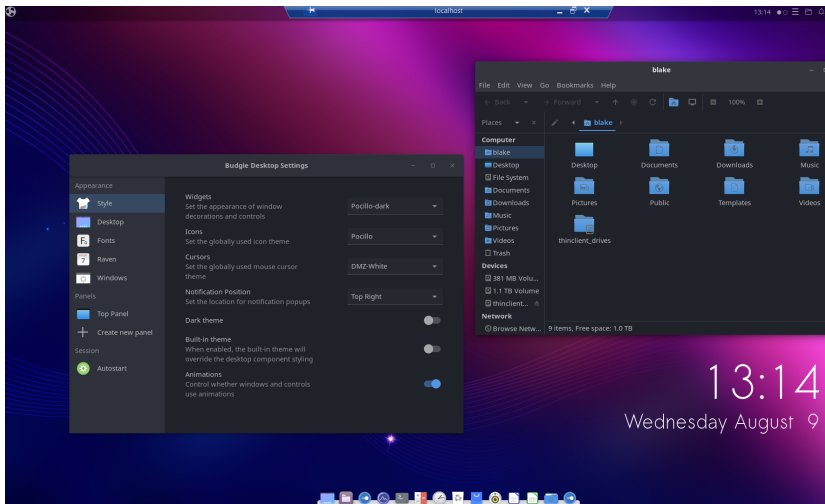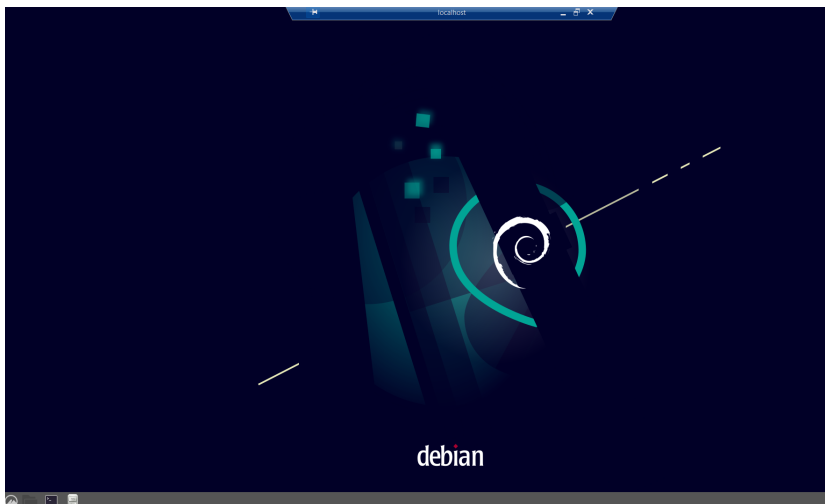
Save and continue

Budgie

```
sudo apt install -y ubuntu-budgie-desktop
sudo systemctl restart xrdp
```
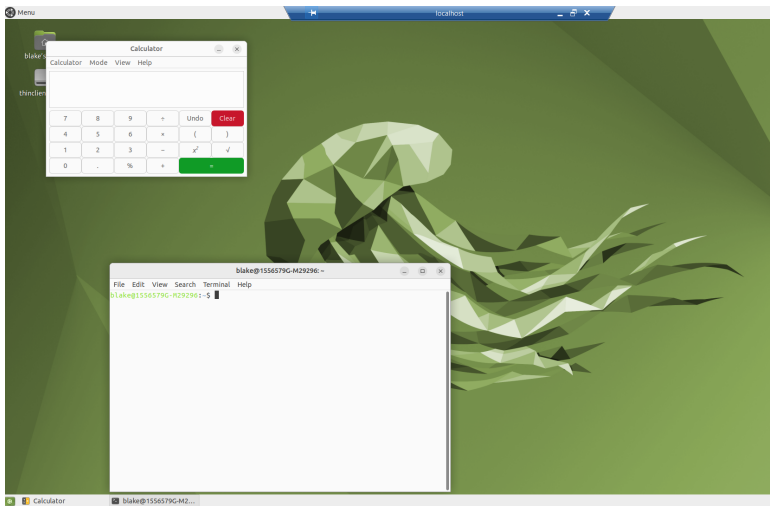

Cinnamon

```
sudo apt install -y cinnamon
sudo systemctl restart xrdp
```
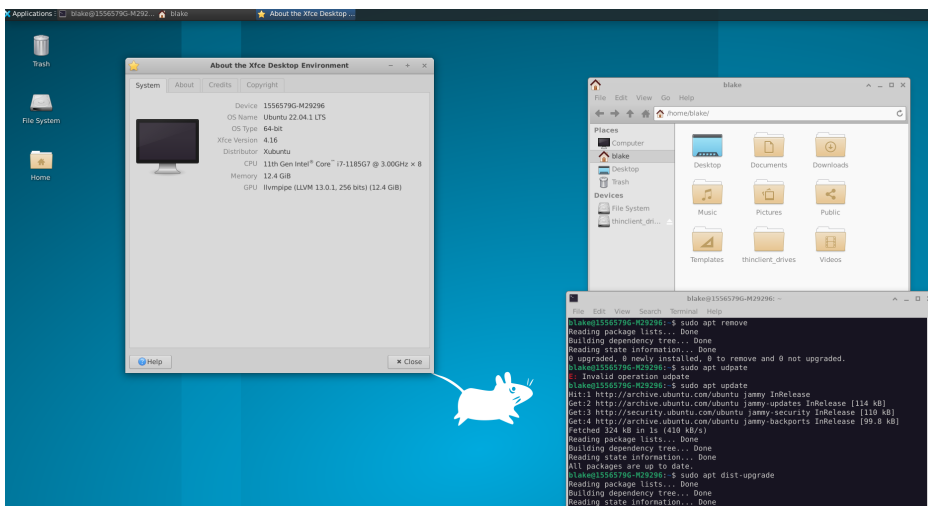

MATE

```
sudo apt install -y ubuntu-mate-desktop
sudo systemctl restart xrdp
```
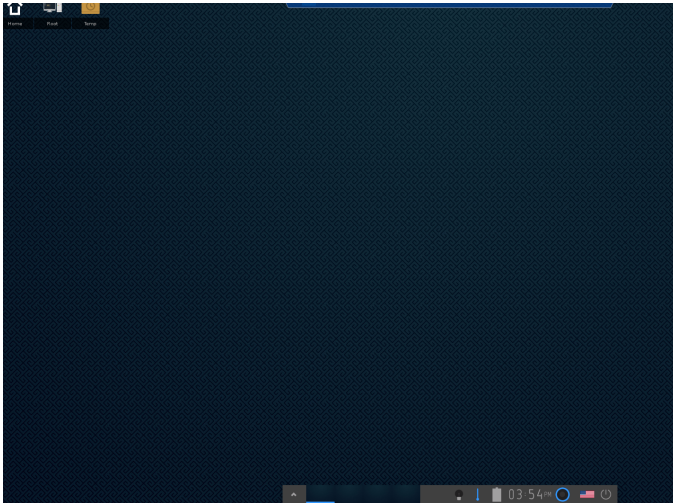
Xfce

```
sudo apt install -y xfce4
sudo systemctl restart xrdp
```



```
sudo add-apt-repository ppa:niko2040/e19
sudo apt update
sudo apt install enlightenment -y
sudo systemctl restart xrdp
```
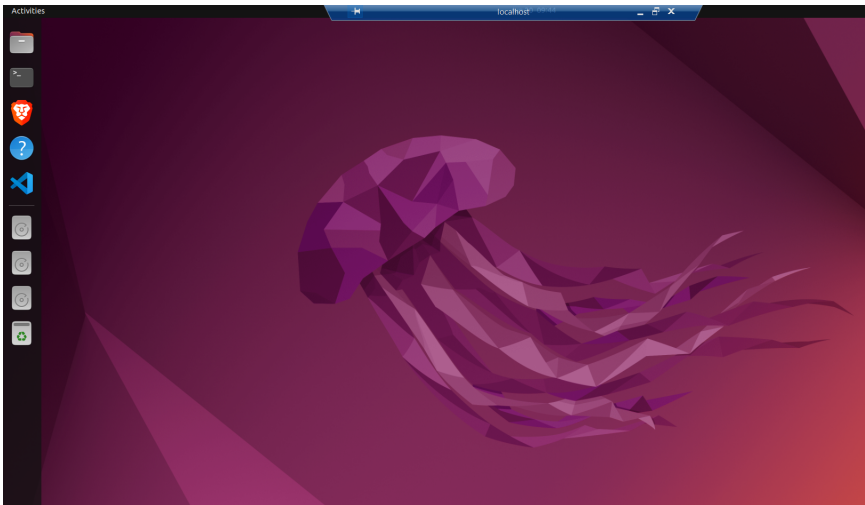
Create ~/.xsessionrc with the following contents:

```
export GNOME_SHELL_SESSION_MODE=ubuntu
export XDG_CURRENT_DESKTOP=ubuntu:GNOME
export XDG_DATA_DIRS=/usr/share/ubuntu:/usr/local/share:/usr/share:/var/lib/snapd/desktop
export WAYLAND_DISPLAY=
export XDG_CONFIG_DIRS=/etc/xdg/xdg-ubuntu:/etc/xdg
```

Gnome

```
sudo apt install -y ubuntu-desktop-minimal # or ubuntu-desktop
sudo systemctl restart xrdp
```
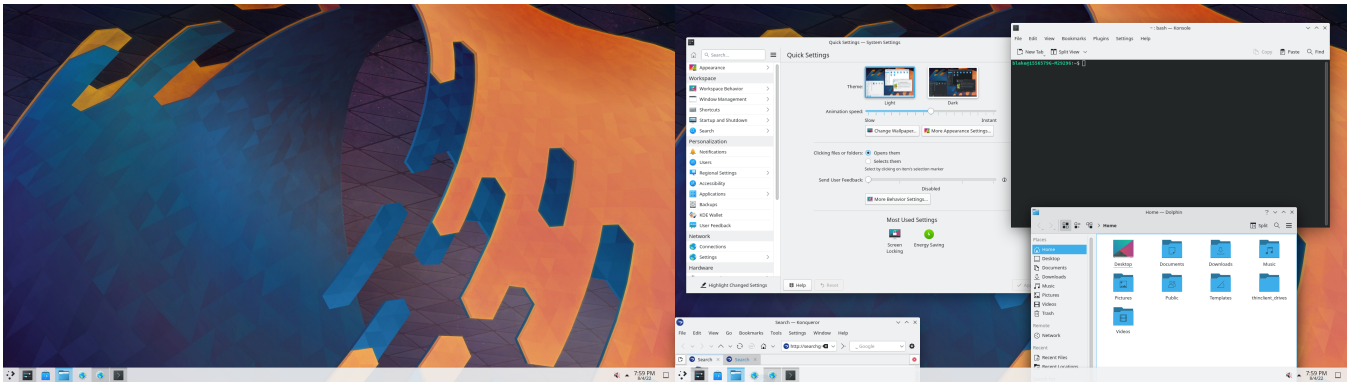

Note: it can be useful to install apps via snap: How to Search, Install, Remove Snap Apps in Command Line | UbuntuHandbook

Currently in my testing the GUI for 'Ubuntu Software' doesn't work
Create ~/.xsession and paste the following:

```
startplasma-x11
export XDG_SESSION_DESKTOP=KDE
export XDG_DATA_DIRS=/usr/share/plasma:/usr/local/share:/usr/share:/var/lib/snapd/desktop
export XDG_CONFIG_DIRS=/etc/xdg/xdg-plasma:/etc/xdg:/usr/share/kubuntu-default-settings/kf5-settings
```
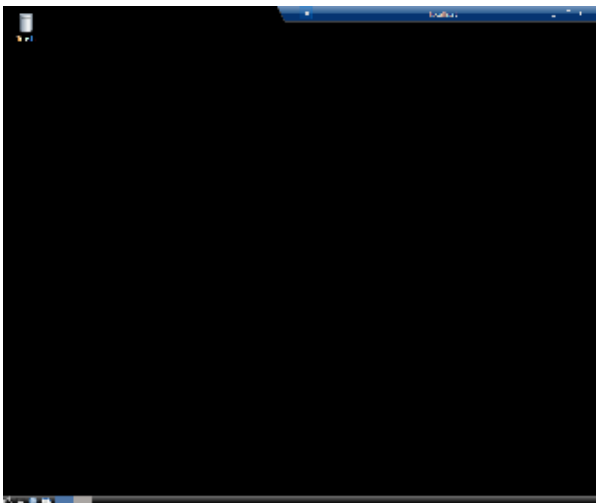
KDE

```
sudo apt install -y kde-standard
sudo systemctl restart xrdp
```
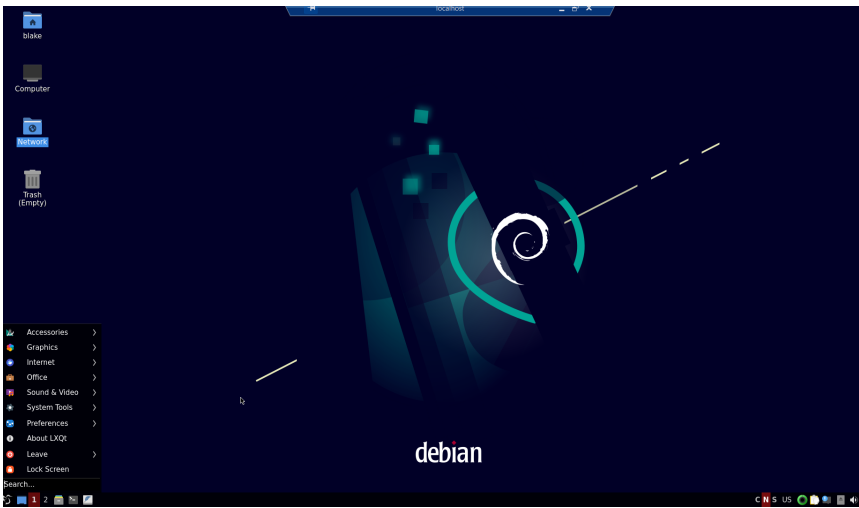

LXDE

```
sudo apt install -y lxde
sudo systemctl start xrdp
```
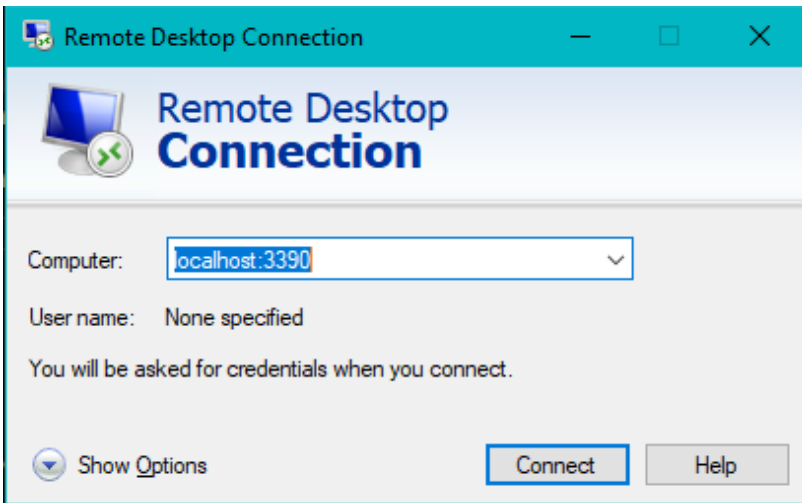

LXQT

```
sudo apt install -y task-lxqt-desktop
sudo systemctl restart xrdp
```
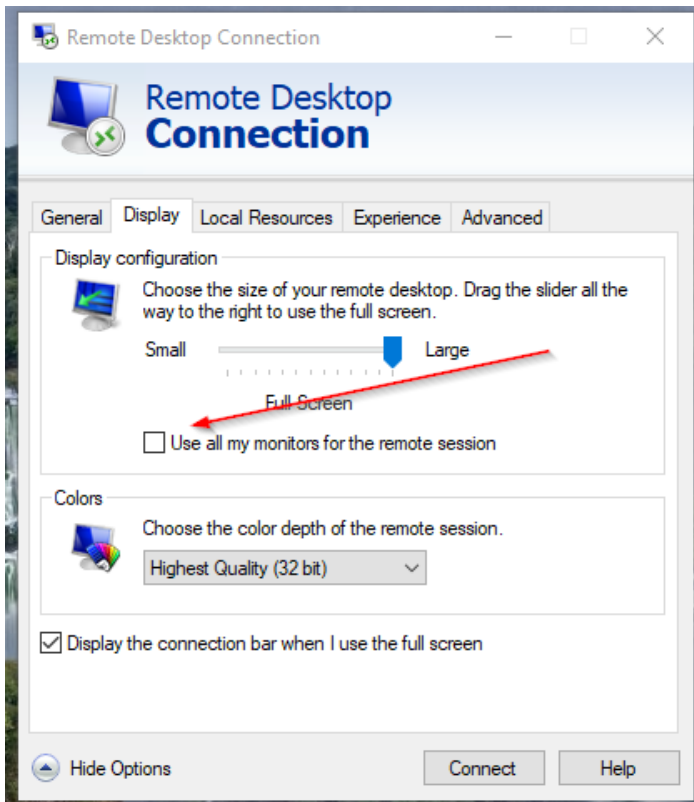
On the Windows laptop, launch the RDP client (mstsc.exe) and connect to localhost:3390
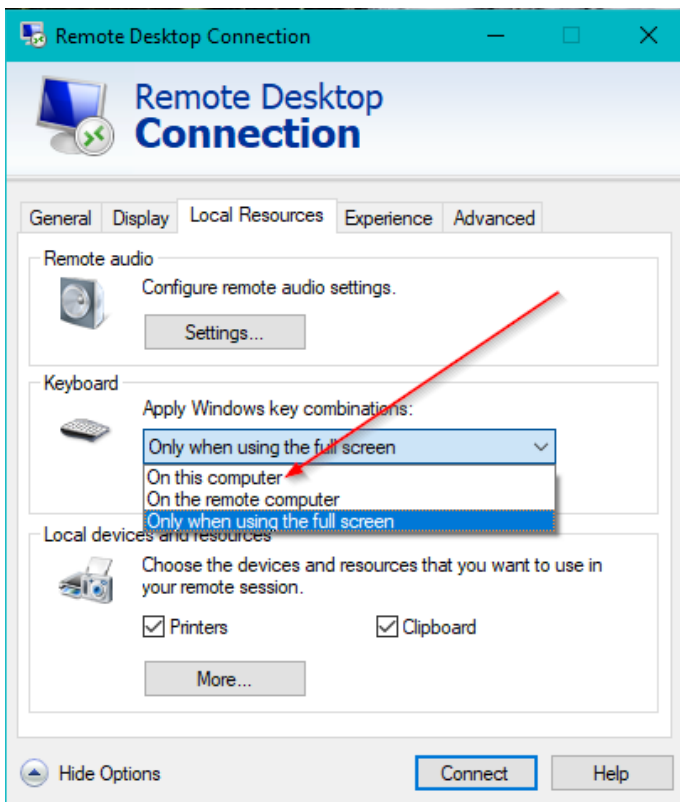

Then log in with your WSL credentials

Tips:

Check 'Use all my monitors' if you want the WSL desktop to span multiple monitors.

Set the Windows key combinations to 'On this computer' if you want to use the WSL desktop in full screen and still use Windows virtual desktops with keyboard shortcuts.

Additional Notes

If your background and task bar goes away in KDE, Press <ALT>F2, and a run command prompt called *krunner* will appear at the top of the screen. In the box, type **plasmashell**. which should restart the desktop.

TODO: Luxuries like sound, etc. (totally untested, listed here for reference):

https://www.linuxuprising.com/2021/03/how-to-get-sound-pulseaudio-to-work-on.html