

# LinuxChix LA Present Multi-monitor and Multiplayer Games on Linux ;-)



**Valve Steam Linux Games Installer: <http://store.steampowered.com/>  
Or Available in most Linux Distributions Software Center**

## Multiplayer Online Games

Distance	Flashout 2	Action Henk
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## Multi-monitor Games

Action Henk	Audiosurf 2 Demo**	Cosmophony	Distance
Flashout 2	InMind VR**	Jet Racing Extreme Demo**	Orborun
Robot Roller-Derby Disco Dodgeball	The Talos Principle Demo**	Trine 2 Demo**	Waveform Demo**

\*\*=Free Demo Available on Steam :-)

## Setting Up Multi-monitor Gaming on Linux

Many of these games preferences files need to be edited to the desired 3 monitor resolution to play correctly. In Unity created games (which are most of the Linux games on Steam) you can go to **/home/[username]/.config/unity3d/[name of game developer]/[name of game]/prefs** file. Here is an example:

```
<unity_prefs version_major="1" version_minor="1">  
  <pref name="R1_START_KEY" type="int">21</pref>  
  <pref name="Screenmanager Is Fullscreen mode" type="int">0</pref>  
  <pref name="Screenmanager Resolution Height" type="int">1050</pref>  
  <pref name="Screenmanager Resolution Width" type="int">5040</pref>  
  <pref name="UnitySelectMonitor" type="int">-1</pref>  
</unity_prefs>
```

In your favorite text editor change Fullscreen mode to 0, or "off." In order for the game to span across three screens Windowed mode needs to be turned on, which is the default when Fullscreen is turned off. Now change the Screenmanager Resolution Height and Width to the desired 3 monitor resolution and save the file. If you have 3 1080p monitors the resolution is 1080 Height x 5760 Width. Also change the prefs file permissions to Read only so the resolution doesn't change each time you start the game.

And if the Unity game starts up with a resolution dialog, you need to disable it, or it will override your settings in the Unity prefs file. Go to: **/home/[username]/.steam/steam/steamapps/common/[name of game]/[name of game\_Data]/Plugins/x86 (or x86\_64)/ScreenSelector.so**. And move the ScreenSelector.so file to another temporary folder so it does not effect the game on startup.

After much troubleshooting I have found that this technique works 99% of the time on most Unity games :-)

**And if the game allows you can just put the game in "Windowed" mode and scale the game window across your three screens :-)**

For other game engines, such as Unreal or Valve's Source Engine etc., many of the same techniques apply, but the files to edit are just in different locations, and you can refer to the games Steam Community Hub Discussions board for help on finding and editing these files.

←-----**Building or Upgrading a Machine to a Gaming Rig on a Budget**-----→



# Building or Upgrading a Machine to a Gaming Rig on a Budget

**The 3 Monitor Red Tux Gaming Rig on display was built for under \$400 dollars, which includes the \$180 dollars for 3 monitors!**

Do you have an old dual core computer hanging around collecting dust? This computer was built from parts pulled from an old server that was stored in my garage and it was given to me for free! All I had to purchase was a new case, graphics card, mouse, keyboard, case mod light, 3 monitors, speakers, a miniHDMI to VGA converter for the graphics card and a professional quality sound card because the onboard sound cards are not high enough quality for me!

I have 2 more higher end gaming workstations at home with 3 30" monitors and a 5.1 sound system, but brought this one to our LinuxChix LA ScaLE booth to show that you can build a system or upgrade an existing desktop on a budget! As long as you have minimally an Intel/AMD dual core machine, with 4 Megs of RAM and at least a \$100 dollar+/- gaming video card you can play every game on Steam in Linux with at least medium settings. And often at high settings. Nvidia cards are preferred for Linux and to drive 3 monitors you need at least an Nvidia GeForce GT 640 2Gig or higher card that retails for around \$120. I bought this card on eBay.com used for a mere \$45 dollars! And it is what is powering the Red Tux Gaming Rig that you see on display at our booth :-)

## Jill.linuxgirl's Full 3 Monitor Red Tux Gaming Rig Specs:

**System:** Host: jillixAMD64 Kernel: 3.13.0-24-generic x86\_64 (64 bit, gcc: 4.8.2)  
Desktop: Fluxbox 1.3.5 Distro: Ubuntu 14.04 trusty

**Machine:** Mobo: ASUSTeK model: M2N-E SLI version: 1.XX Bios: Phoenix version: ASUS M2N-E SLI 0701 date: 03/02/2007

**CPU:** Dual core AMD Athlon 64 X2 5600+ (-MCP-) cache: 2048 KB flags: (lm nx sse sse2 sse3 svm) bmips: 11257.4  
Clock Speeds: 1: 2814.346 MHz 2: 2814.346 MHz

**Graphics:** Card: NVIDIA GK107 [GeForce GT 640] bus-ID: 05:00.0  
X.Org: 1.15.1 driver: nvidia Resolution: 1680x1050@60.0hz, 1680x1050@60.0hz, 1680x1050@60.0hz  
GLX Renderer: GeForce GT 640/PCIe/SSE2 GLX Version: 4.5.0 NVIDIA 346.96 Direct Rendering: Yes

**Audio:** Card-1: NVIDIA GK107 HDMI Audio Controller driver: snd\_hda\_intel bus-ID: 05:00.1  
Card-2: Creative Labs SB X-Fi driver: snd\_ctxfi port: b800 bus-ID: 01:06.0 (This is a retail \$250 sound card I found used from a pulled lot on eBay.com for \$20, and it's the one I have in every machine at home :-)  
Card-3: C-Media driver: USB Audio usb-ID: 002-002  
Sound: Advanced Linux Sound Architecture ver: k3.13.0-24-generic

**Network:** Card-1: Ralink RT2760 Wireless 802.11n 1T/2R driver: rt2800pci ver: 2.3.0 bus-ID: 01:07.0  
IF: wlan0 state: up mac: 00:1d:6a:2b:eb:eb  
Card-2: NVIDIA CK804 Ethernet Controller driver: forcedeth port: c400 bus-ID: 00:0a.0  
IF: eth0 state: down mac: 00:18:f3:0d:7e:27

**Drives:** HDD Total Size: 2000.4GB (4.4% used) 1: id: /dev/sda model: Hitachi\_HDS72202 size: 2000.4GB

**Case:** Corsair Graphite Series 230T Black with Window Compact Mid-Tower Computer Case (CC-9011042-WW), \$70 from Amazon.com

**Mouse:** Generic Color changing LED Mouse, \$8 from eBay.com

**Keyboard:** AULA 3 Colors LED Backlight USB Illuminated Gaming Keyboard, \$21 from eBay.com

**Case Light:** Logisys Sunlight Bar Red 12" 4-Pin LED Lighting Tube with 18 LEDs (ML12RD), \$16

**Monitors:** 3 20" widescreen Dell monitors, \$180 used from eBay.com

**Speakers:** Altec Lansing VS2620 Speakers, \$23 from eBay.com

**miniHDMI to VGA converter:** This was needed to hook up one of the digital out heads on the graphics card to VGA on one of the monitors, \$10 from Amazon.com

It dual boots Ubuntu 14.04 and SteamOS. I prefer to use the Window Maker and Fluxbox X window managers for playing games because they are extremely low memory and save the windowed size state for each game every time you start the game.

You can grab one of my favorite graphic cards, and one of the most used by gamers because of price and quality--the EVGA GeForce GTX 750Ti SC 2GB GDDR5 Graphics Card on Amazon for only \$120 :-). I have this wonderful card in another machine. It also does not require an extra power connector and is great for power supplies 300 watts or higher. It uses the very memory efficient Maxwell architecture.

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Jill.linuxgirl on Steam or jill\_linuxgirl in LinuxGameCast Shatrealm ;-)

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