

Re: Multiple screens TV and Monitor??

Source: <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/questions/2003-08/0133.html>

From: Frank Knobbe (frank_at_knobbe.us)

Date: 08/02/03

To: kristof <masterkristof@pandora.be>

Date: 01 Aug 2003 22:27:18 +0000

On Fri, 2003-08-01 at 13:24, kristof wrote:

> Does anybody know how you to configure your Xfreeconfig file so that
> it can lanch two X windows at the same time. I would like te be able
> to view my screen on my tv and monitor at the same time. I can do it
> separatly(TV or Monitor) but it has to be possible to have twinview. I
> have an NVIDIA Geforce 4 MX 440 SE and I'm pretty sure it supports
> this feature (Works in WINDHOOS). Any links with information or advice
> on how to adchieve this would be very welkom

Kristof,

this should be explained in the documentation or FAQ of the Nvidia Linux driver. There is a "twinview" keyword that enables TwinView in X. There are also a couple other options that specify the second display, it's screen size, and where (layout-wise) it is located in relation to the primary display.

I have my Xconfig file for TwinView attached. It enables my TFT display (DFP) (Inspiron 8100 with GeForce2 Go) and the external monitor (CRT). The keyword for the TV output I believe is just "TV". All those things are in the DEVICE section. Use the attached stuff as an example and modify it to fit your needs.

Hope this helps,
Frank

PS: Anyone know a decent and not too expensive TFT flat screen capable of 1600x1200?

Section "ServerFlags"

```
# Uncomment this to cause a core dump at the spot where a signal is  
# received. This may leave the console in an unusable state, but may
```

freebsd-questions: Re: Multiple screens TV and Monitor??

provide a better stack trace in the core dump to aid in debugging

NoTrapSignals

Uncomment this to disable the <Ctrl><Alt><BS> server abort sequence

This allows clients to receive this key event.

DontZap

Uncomment this to disable the <Ctrl><Alt><KP_+>/<KP_-> mode switching

sequences. This allows clients to receive these key events.

DontZoom

EndSection

Section "Device"

Identifier "NVIDIA GeForce 2"

VendorName "NVIDIA"

BoardName "GeForce2 Go"

Driver "nvidia"

VideoRam 32768

Option "FlatPanelScalingMode" "scaled"

Option "CursorShadow" "On"

Option "CursorShadowXOffset" "2"

Option "ConnectedMonitor" "DFP,CRT"

Option "TwinView" "On"

Option "SecondMonitorHorizSync" "90"

Option "SecondMonitorVertRefresh" "80"

Option "TwinViewOrientation" "RightOf"

Option "MetaModes" "1600x1200,1024x768;"

Option "MetaModes" "1024x768,1600x1200;"

Option "MetaModes" "1024x768@1024x1200,1600x1200;"

Option "UseEdidFreqs" "On"

EndSection

Section "Module"

Load "bitmap"

Load "extmod"

Load "dbe"

Load "type1"

Load "glx"

Load "freetype"

EndSection

Section "Screen"

Identifier "Screen"

Device "NVIDIA GeForce 2"

Monitor "Dell 1600X Laptop Display Panel"

DefaultColorDepth 24

freebsd-questions: Re: Multiple screens TV and Monitor??

```
Subsection "Display"  
    Depth 24  
    Modes "1600x1200"  
# Modes "1024x768"  
    ViewPort 0 0  
EndSubsection  
EndSection
```

```
#Section "ServerLayout"  
# Identifier "Normal"  
# InputDevice "Mouse" "CorePointer"  
# InputDevice "Keyboard" "CoreKeyboard"  
#EndSection
```

```
Section "InputDevice"  
    Identifier "Mouse"  
    Driver "mouse"  
# Option "Protocol" "PS/2"  
# Option "Protocol" "IntelliMouse"  
# Option "Device" "/dev/mouse"  
    Option "Device" "/dev/sysmouse"  
  
    Option "ZAxisMapping" "4 5"  
# Option "Protocol" "Xqueue"
```

```
# Emulate3Buttons  
# Emulate3Timeout 50  
EndSection
```

```
Section "Files"
```

```
# The location of the RGB database. Note, this is the name of the  
# file minus the extension (like ".txt" or ".db"). There is normally  
# no need to change the default.
```

```
    RgbPath "/usr/X11R6/lib/X11/rgb"
```

```
# Multiple FontPath entries are allowed (they are concatenated together)  
# By default, Red Hat 6.0 and later now use a font server independent of  
# the X server to render fonts.
```

```
    FontPath "/usr/X11R6/lib/X11/fonts/local"  
    FontPath "/usr/X11R6/lib/X11/fonts/misc"  
    FontPath "/usr/X11R6/lib/X11/fonts/75dpi:unscaled"  
    FontPath "/usr/X11R6/lib/X11/fonts/100dpi:unscaled"  
    FontPath "/usr/X11R6/lib/X11/fonts/Type1/"  
    FontPath "/usr/X11R6/lib/X11/fonts/Speedo/"  
    FontPath "/usr/X11R6/lib/X11/fonts/75dpi/"  
    FontPath "/usr/X11R6/lib/X11/fonts/100dpi/"
```

```
    ModulePath "/usr/X11R6/lib/modules"
```

Re: Multiple screens TV and Monitor??

EndSection

Section "InputDevice"

Identifier "Keyboard"

Driver "Keyboard"

Option "Protocol" "Standard"

Option "AutoRepeat" "250 12"

Option Protocol "Xqueue"

Specify which keyboard LEDs can be user-controlled (eg, with xset(1))

Xleds 1 2 3

To set the LeftAlt to Meta, RightAlt key to ModeShift,

RightCtl key to Compose, and ScrollLock key to ModeLock:

LeftAlt Meta

RightAlt Meta

ScrollLock Compose

RightCtl Control

To disable the XKEYBOARD extension, uncomment XkbDisable.

XkbDisable

To customise the XKB settings to suit your keyboard, modify the

lines below (which are the defaults). For example, for a non-U.S.

keyboard, you will probably want to use:

XkbModel "pc102"

If you have a US Microsoft Natural keyboard, you can use:

XkbModel "microsoft"

#

Then to change the language, change the Layout setting.

For example, a german layout can be obtained with:

XkbLayout "de"

or:

XkbLayout "de"

XkbVariant "nodeadkeys"

#

If you'd like to switch the positions of your capslock and

control keys, use:

XkbOptions "ctrl:swapcaps"

#

If you'd like to disable the capslock key, use:

XkbOptions "ctrl:nocaps"

Option "XkbRules" "xfree86"

Option "XkbModel" "pc105"

Option "XkbLayout" "us"

Option "XkbVariant" "nodeadkeys"

#XkbOptions ""

EndSection

Section "Monitor"

Identifier "Dell 1600X Laptop Display Panel"

VendorName "Unknown"

ModelName "Unknown"

HorizSync is in kHz unless units are specified.

HorizSync may be a comma separated list of discrete values, or a

comma separated list of ranges of values.

NOTE: THE VALUES HERE ARE EXAMPLES ONLY. REFER TO YOUR MONITOR'S

USER MANUAL FOR THE CORRECT NUMBERS.

HorizSync 31.5-90.0

VertRefresh is in Hz unless units are specified.

VertRefresh may be a comma separated list of discrete values, or a

comma separated list of ranges of values.

NOTE: THE VALUES HERE ARE EXAMPLES ONLY. REFER TO YOUR MONITOR'S

USER MANUAL FOR THE CORRECT NUMBERS.

VertRefresh 59.0-85.0

Modes can be specified in two formats. A compact one-line format, or

a multi-line format.

These two are equivalent

ModeLine "1024x768i" 45 1024 1048 1208 1264 768 776 784 817 Interlace

Mode "1024x768i"

DotClock 45

HTimings 1024 1048 1208 1264

VTimings 768 776 784 817

Flags "Interlace"

EndMode

This is a set of standard mode timings. Modes that are out of monitor spec

are automatically deleted by the server (provided the HorizSync and

VertRefresh lines are correct), so there's no immediate need to

delete mode timings (unless particular mode timings don't work on your

monitor). With these modes, the best standard mode that your monitor

and video card can support for a given resolution is automatically

used.

Low-res Doublescan modes

If your chipset does not support doublescan, you get a 'squashed'

resolution like 320x400.

---320x200---

320x200 @ 70 Hz, 31.5 kHz hsync, 8:5 aspect ratio

Re: Multiple screens TV and Monitor??

freebsd-questions: Re: Multiple screens TV and Monitor??

```
Modeline "320x200" 12.588 320 336 384 400
    200 204 205 225 Doublescan
# 320x240 @ 60 Hz, 31.5 kHz hsync, 4:3 aspect ratio
Modeline "320x240" 12.588 320 336 384 400
    240 245 246 262 Doublescan
# 320x240 @ 72 Hz, 36.5 kHz hsync
Modeline "320x240" 15.750 320 336 384 400
    240 244 246 262 Doublescan
# --400x300--
# 400x300 @ 56 Hz, 35.2 kHz hsync, 4:3 aspect ratio
ModeLine "400x300" 18 400 416 448 512
    300 301 302 312 Doublescan
# 400x300 @ 60 Hz, 37.8 kHz hsync
Modeline "400x300" 20 400 416 480 528
    300 301 303 314 Doublescan
# 400x300 @ 72 Hz, 48.0 kHz hsync
Modeline "400x300" 25 400 424 488 520
    300 319 322 333 Doublescan
# 480x300 @ 56 Hz, 35.2 kHz hsync, 8:5 aspect ratio
ModeLine "480x300" 21.656 480 496 536 616
    300 301 302 312 Doublescan
# 480x300 @ 60 Hz, 37.8 kHz hsync
Modeline "480x300" 23.890 480 496 576 632
    300 301 303 314 Doublescan
# 480x300 @ 63 Hz, 39.6 kHz hsync
Modeline "480x300" 25 480 496 576 632
    300 301 303 314 Doublescan
# 480x300 @ 72 Hz, 48.0 kHz hsync
Modeline "480x300" 29.952 480 504 584 624
    300 319 322 333 Doublescan

# Normal video modes

# -- 512x384
# 512x384 @ 78 Hz, 31.50 kHz hsync
Modeline "512x384" 20.160 512 528 592 640
    384 385 388 404 -HSync -VSync
# 512x384 @ 85 Hz, 34.38 kHz hsync
Modeline "512x384" 22 512 528 592 640
    384 385 388 404 -HSync -VSync

# -- 640x400 --
# 640x400 @ 70 Hz, 31.5 kHz hsync
Modeline "640x400" 25.175 640 664 760 800
    400 409 411 450
# 640x400 @ 85 Hz, 37.86 kHz hsync
Modeline "640x400" 31.5 640 672 736 832
    400 401 404 445 -HSync +VSync

# --- 640x480 ---
# 640x480 @ 60 Hz, 31.5 kHz hsync
```

Re: Multiple screens TV and Monitor??

freebsd-questions: Re: Multiple screens TV and Monitor??

```
Modeline "640x480" 25.175 640 664 760 800
    480 491 493 525
# 640x480 @ 72 Hz, 36.5 kHz hsync
    Modeline "640x480" 31.5 640 680 720 864
        480 488 491 521
# 640x480 @ 75 Hz, 37.50 kHz hsync
    Modeline "640x480" 31.5 640 656 720 840
        480 481 484 500 -HSync -VSync
# 640x480 @ 85 Hz, 43.27 kHz hsync
    Modeline "640x480" 36 640 696 752 832
        480 481 484 509 -HSync -VSync
# 640x480 @ 100 Hz, 53.01 kHz hsync
    Modeline "640x480" 45.8 640 672 768 864
        480 488 494 530 -HSync -VSync

# --- 800x600 ---
# 800x600 @ 56 Hz, 35.15 kHz hsync
    Modeline "800x600" 36 800 824 896 1024
        600 601 603 625
# 800x600 @ 60 Hz, 37.8 kHz hsync
    Modeline "800x600" 40 800 840 968 1056
        600 601 605 628 +hsync +vsync
# 800x600 @ 72 Hz, 48.0 kHz hsync
    Modeline "800x600" 50 800 856 976 1040
        600 637 643 666 +hsync +vsync
# 800x600 @ 85 Hz, 55.84 kHz hsync
    Modeline "800x600" 60.75 800 864 928 1088
        600 616 621 657 -HSync -VSync
# 800x600 @ 100 Hz, 64.02 kHz hsync
    Modeline "800x600" 69.65 800 864 928 1088
        600 604 610 640 -HSync -VSync

# --- 1024x768 ---
# 1024x768 @ 60 Hz, 48.4 kHz hsync
    Modeline "1024x768" 65 1024 1032 1176 1344
        768 771 777 806 -hsync -vsync
# 1024x768 @ 70 Hz, 56.5 kHz hsync
    Modeline "1024x768" 75 1024 1048 1184 1328
        768 771 777 806 -hsync -vsync
# 1024x768 @ 76 Hz, 62.5 kHz hsync
    Modeline "1024x768" 85 1024 1032 1152 1360
        768 784 787 823
# 1024x768 @ 85 Hz, 70.24 kHz hsync
    Modeline "1024x768" 98.9 1024 1056 1216 1408
        768 782 788 822 -HSync -VSync
# 1024x768 @ 100Hz, 80.21 kHz hsync
    Modeline "1024x768" 115.5 1024 1056 1248 1440
        768 771 781 802 -HSync -VSync

# --- 1152x864 ---
# 1152x864 @ 60 Hz, 53.5 kHz hsync
```

freebsd-questions: Re: Multiple screens TV and Monitor??

```
Modeline "1152x864" 89.9 1152 1216 1472 1680
      864 868 876 892 -HSync -VSync
# 1152x864 @ 70 Hz, 62.4 kHz hsync
  Modeline "1152x864" 92 1152 1208 1368 1474
      864 865 875 895
# 1152x864 @ 78 Hz, 70.8 kHz hsync
  Modeline "1152x864" 110 1152 1240 1324 1552
      864 864 876 908
# 1152x864 @ 84 Hz, 76.0 kHz hsync
  Modeline "1152x864" 135 1152 1464 1592 1776
      864 864 876 908
# 1152x864 @ 100 Hz, 89.62 kHz hsync
  Modeline "1152x864" 137.65 1152 1184 1312 1536
      864 866 885 902 -HSync -VSync

# --- 1280x1024 ---
# 1280x1024 @ 61 Hz, 64.2 kHz hsync
  Modeline "1280x1024" 110 1280 1328 1512 1712
      1024 1025 1028 1054
# 1280x1024 @ 70 Hz, 74.59 kHz hsync
  Modeline "1280x1024" 126.5 1280 1312 1472 1696
      1024 1032 1040 1068 -HSync -VSync
# 1280x1024 @ 74 Hz, 78.85 kHz hsync
  Modeline "1280x1024" 135 1280 1312 1456 1712
      1024 1027 1030 1064
# 1280x1024 @ 76 Hz, 81.13 kHz hsync
  Modeline "1280x1024" 135 1280 1312 1416 1664
      1024 1027 1030 1064
# 1280x1024 @ 85 Hz, 91.15 kHz hsync
  Modeline "1280x1024" 157.5 1280 1344 1504 1728
      1024 1025 1028 1072 +HSync +VSync
# 1280x1024 @ 100 Hz, 107.16 kHz hsync
  Modeline "1280x1024" 181.75 1280 1312 1440 1696
      1024 1031 1046 1072 -HSync -VSync

# --- 1400x1050 ---
# 1400x1050 @ 60Hz, 65.8 kHz hsync
  Modeline "1400x1050" 129 1400 1464 1656 1960
      1050 1051 1054 1100 +HSync +VSync

# 1400x1050 @ 70Hz, 76.8 kHz hsync
  Modeline "1400x1050" 151 1400 1464 1656 1960
      1050 1051 1054 1100 +HSync +VSync

# 1400x1050 @ 75Hz, 82.3 kHz hsync
  Modeline "1400x1050" 162 1400 1464 1656 1960
      1050 1051 1054 1100 +HSync +VSync

# 1400x1050 @ 85Hz, 93.2 kHz hsync
  Modeline "1400x1050" 184 1400 1464 1656 1960
      1050 1051 1054 1100 +HSync +VSync
```

freebsd-questions: Re: Multiple screens TV and Monitor??

```
# --- 1600x1200 ---
# 1600x1200 @ 60Hz, 75.00 kHz hsync
  Modeline "1600x1200" 162 1600 1664 1856 2160
                        1200 1201 1204 1250 +HSync +VSync
# 1600x1200 @ 70 Hz, 87.50 kHz hsync
  Modeline "1600x1200" 189 1600 1664 1856 2160
                        1200 1201 1204 1250 -HSync -VSync
# 1600x1200 @ 75 Hz, 93.75 kHz hsync
  Modeline "1600x1200" 202.5 1600 1664 1856 2160
                        1200 1201 1204 1250 +HSync +VSync
# 1600x1200 @ 85 Hz, 105.77 kHz hsync
  Modeline "1600x1200" 220 1600 1616 1808 2080
                        1200 1204 1207 1244 +HSync +VSync

# --- 1800x1400 ---

# 1800x1440 @ 64Hz, 96.15 kHz hsync
  ModeLine "1800X1440" 230 1800 1896 2088 2392
                        1440 1441 1444 1490 +HSync +VSync
# 1800x1440 @ 70Hz, 104.52 kHz hsync
  ModeLine "1800X1440" 250 1800 1896 2088 2392
                        1440 1441 1444 1490 +HSync +VSync

# --- 1920x1200 ---

# 1920x1200 @ 70Hz, 87.50 KHz hsync
  Modeline "1920x1200" 230 1920 1936 2096 2528
                        1200 1201 1204 1250 +HSync +VSync
EndSection
```

-
- application/pgp-signature attachment: [This is a digitally signed message part](#)