X11 Command-Line Tools

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Outline

X11 command-line tools

Bonus
xlsclients

% xlsclients
  caliban /usr/bin/compiz
  caliban gnome-session
  caliban gnome-settings-daemon
  caliban gnome-panel
  caliban gnome-power-manager
  caliban nautilus
...

- display    list clients on display
- l           long format (detailed output)
- a           list clients on all screens
% xwininfo

xwininfo: Please select the window about which you would like information by clicking the mouse in that window.

xwininfo: Window id: 0x4c67a5a "pk@prospero: ~"

Absolute upper-left X: 931
Absolute upper-left Y: 61
Relative upper-left X: 931
Relative upper-left Y: 61
Width: 668
Height: 809
...
XDPYINFO

Lots of information about your X server configuration

% xdpyninfo
name of display: :0.0
version number: 11.0
vendor string: The X.Org Foundation
vendor release number: 10706000
X.Org version: 1.7.6
maximum request size: 16777212 bytes
motion buffer size: 256
bitmap unit, bit order, padding: 32, LSBFirst, 32
...
glxinfo

Figure out if your accelerated rendering is configured right

% glxinfo
name of display: :0.0
display: :0 screen: 0
direct rendering: Yes
server glx vendor string: NVIDIA Corporation
server glx version string: 1.4
server glx extensions:
    GLX_EXT_visual_info, GLX_EXT_visual_rating, GLX_SGIX_fbconfig,
    GLX_SGIX_pbuffer, GLX_SGI_video_sync, GLX_SGI_swap_control,
    GLX_EXT_swap_control, GLX_EXT_texture_from_pixmap, GLX_ARB_create_context,
    GLX_ARB_create_context_profile, GLX_ARB_multisample, GLX_NV_float_buffer,
    GLX_ARB_fbconfig_float, GLX_EXT_framebuffer_sRGB
client glx vendor string: NVIDIA Corporation
client glx version string: 1.4
...
## Other info utilities

<table>
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<th>Command</th>
<th>Description</th>
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<tr>
<td>xdriinfo</td>
<td>Query direct rendering drivers</td>
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<tr>
<td>xvinfo</td>
<td>Query X-Video extension</td>
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Figure out what events are generated by X

Outer window is 0x6400001, inner window is 0x6400002

PropertyNotify event, serial 8, synthetic NO, window 0x6400001, atom 0x27 (WM_NAME), time 129944551, state PropertyNewValue

PropertyNotify event, serial 9, synthetic NO, window 0x6400001, atom 0x22 (WM_COMMAND), time 129944551, state PropertyNewValue

PropertyNotify event, serial 10, synthetic NO, window 0x6400001, atom 0x28 (WM_NORMAL_HINTS), time 129944551, state PropertyNewValue

CreateNotify event, serial 11, synthetic NO, window 0x6400001, parent 0x6400001, window 0x6400002, (10,10), width 50, height 50, border_width 4, override NO
xprop

Peek at X window properties

_NET_WM_ICON_GEOMETRY(CARDINAL) = 1236, 876, 120, 24
XKLAVIER_STATE(INTEGER) = 0, 0
WM_STATE(WM_STATE):
    window state: Normal
    icon window: 0x0
_NET_WM_DESKTOP(CARDINAL) = 0
_NET_WM_STATE(ATOM) =
_NET_FRAME_EXTENTS(CARDINAL) = 1, 1, 27, 5
_NET_FRAME_WINDOW(WINDOW): window id # 0x20f48b6
...

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xkill

Low-level killing of a recalcitrant window by id

% xkill -id 0x20f48b6
xkill: killing creator of resource 0x20f48b6
X11 Forwarding with SSH

X11 forwarding is easy and fun!

```
home% ssh -X office
office% echo $DISPLAY
localhost 11.0
office% gnome-terminal &
```

- Server needs **X11Forwarding yes**
- Client can enable permanently with **ForwardX11 yes**, but don’t do it!
- **Don’t use this if you don’t trust/control the remote server!**
  - Particularly if someone else might be able to read your ~/.Xauthority)
- Disable **ForwardX11** and **ForwardAgent** by default