Rocky Enterprise Linux 9.2 Manual Pages on command 'Xorg.1'

$ man Xorg.1

Xorg(1) General Commands Manual Xorg(1)

NAME

Xorg - X11R7 X server

SYNOPSIS

Xorg [:display] [option ...]

DESCRIPTION

Xorg is a full featured X server that was originally designed for UNIX and UNIX-like operating systems running on Intel x86 hardware. It now runs on a wider range of hardware and OS platforms.

This work was derived by the X.Org Foundation from the XFree86 Project's XFree86 4.4rc2 release. The XFree86 release was originally derived from X386 1.2 by Thomas Roell which was contributed to X11R5 by Snitily Graphics Consulting Service.

PLATFORMS

Xorg operates under a wide range of operating systems and hardware platforms. The Intel x86 (IA32) architecture is the most widely sup? ported hardware platform. Other hardware platforms include Compaq Al? pha, Intel IA64, AMD64, SPARC and PowerPC. The most widely supported

operating systems are the free/OpenSource UNIX-like systems such as Linux, FreeBSD, NetBSD, OpenBSD, and Solaris. Commercial UNIX operat? ing systems such as UnixWare are also supported. Other supported oper? ating systems include GNU Hurd. Mac OS X is supported with the Xquartz(1) X server. Win32/Cygwin is supported with the XWin(1) X server.

NETWORK CONNECTIONS

Xorg supports connections made using the following reliable byte-streams:

Local

On most platforms, the "Local" connection type is a UNIX-domain socket. On some System V platforms, the "local" connection types also include STREAMS pipes, named pipes, and some other mechanisms. See the "LOCAL CONNECTIONS" section of X(7) for details.

TCP/IP

Xorg listens on port 6000+n, where n is the display number. This connection type is usually disabled by default, but may be enabled with the -listen option (see the Xserver(1) man page for details).

OPTIONS

Xorg supports several mechanisms for supplying/obtaining configuration and run-time parameters: command line options, environment variables, the xorg.conf(5) configuration files, auto-detection, and fallback de? faults. When the same information is supplied in more than one way, the highest precedence mechanism is used. The list of mechanisms is ordered from highest precedence to lowest. Note that not all parame? ters can be supplied via all methods. The available command line op? tions and environment variables (and some defaults) are described here and in the Xserver(1) manual page. Most configuration file parameters, with their defaults, are described in the xorg.conf(5) manual page. Driver and module specific configuration parameters are described in the relevant driver or module manual page.

In addition to the normal server options described in the Xserver(1) manual page, Xorg accepts the following command line switches:

vtXX XX specifies the Virtual Terminal device number which Xorg will use. Without this option, Xorg will pick the first available Virtual Terminal that it can locate. This option applies only to platforms that have virtual terminal support, such as Linux, BSD, OpenSolaris, SVR3, and SVR4.

-allowMouseOpenFail

Allow the server to start up even if the mouse device can't be opened or initialised. This is equivalent to the Allow? MouseOpenFail xorg.conf(5) file option.

-allowNonLocalXvidtune

Make the VidMode extension available to remote clients. This allows the xvidtune client to connect from another host. This is equivalent to the AllowNonLocalXvidtune xorg.conf(5) file option. By default non-local connections are not allowed.

-bgamma value

Set the blue gamma correction. value must be between 0.1 and 10. The default is 1.0. Not all drivers support this. See also the -gamma, -rgamma, and -ggamma options.

-bpp n No longer supported. Use -depth to set the color depth, and use -fbbpp if you really need to force a non-default frame? buffer (hardware) pixel format.

-config file

Read the server configuration from file. This option will work for any file when the server is run as root (i.e, with real-uid 0), or for files relative to a directory in the config search path for all other users.

-configdir directory

Read the server configuration files from directory. This op? tion will work for any directory when the server is run as root (i.e, with real-uid 0), or for directories relative to a direc? tory in the config directory search path for all other users.

-configure

When this option is specified, the Xorg server loads all video

driver modules, probes for available hardware, and writes out an initial xorg.conf(5) file based on what was detected. This option currently has some problems on some platforms, but in most cases it is a good way to bootstrap the configuration process. This option is only available when the server is run as root (i.e, with real-uid 0).

-crt /dev/ttyXX

SCO only. This is the same as the vt option, and is provided for compatibility with the native SCO X server.

-depth n

Sets the default color depth. Legal values are 1, 4, 8, 15, 16, and 24. Not all drivers support all values.

-disableVidMode

Disable the parts of the VidMode extension (used by the xvid? tune client) that can be used to change the video modes. This is equivalent to the DisableVidModeExtension xorg.conf(5) file option.

-fbbpp n

Sets the number of framebuffer bits per pixel. You should only set this if you're sure it's necessary; normally the server can deduce the correct value from -depth above. Useful if you want to run a depth 24 configuration with a 24 bpp framebuffer rather than the (possibly default) 32 bpp framebuffer (or vice versa). Legal values are 1, 8, 16, 24, 32. Not all drivers support all values.

-flipPixels

Swap the default values for the black and white pixels.

-gamma value

Set the gamma correction. value must be between 0.1 and 10. The default is 1.0. This value is applied equally to the R, G and B values. Those values can be set independently with the -rgamma, -bgamma, and -ggamma options. Not all drivers support this.

-ggamma value

Set the green gamma correction. value must be between 0.1 and 10. The default is 1.0. Not all drivers support this. See also the -gamma, -rgamma, and -bgamma options.

-ignoreABI

The Xorg server checks the ABI revision levels of each module that it loads. It will normally refuse to load modules with ABI revisions that are newer than the server's. This is be? cause such modules might use interfaces that the server does not have. When this option is specified, mismatches like this are downgraded from fatal errors to warnings. This option should be used with care.

-isolateDevice bus-id

Restrict device resets to the device at bus-id. The bus-id string has the form bustype:bus:device:function (e.g., ?PCI:1:0:0?). At present, only isolation of PCI devices is supported; i.e., this option is ignored if bustype is anything other than ?PCI?.

-keeptty

Prevent the server from detaching its initial controlling ter? minal. If you want to use systemd-logind integration you must specify this option. Not all platforms support (or can use) this option.

-keyboard keyboard-name

Use the xorg.conf(5) file InputDevice section called keyboard-name as the core keyboard. This option is ignored when the Layout section specifies a core keyboard. In the absence of both a Layout section and this option, the first relevant In? putDevice section is used for the core keyboard.

-layout layout-name

Use the xorg.conf(5) file Layout section called layout-name. By default the first Layout section is used.

-logfile filename

Use the file called filename as the Xorg server log file. The default log file when running as root is /var/log/Xorg.n.log and for non root it is $XDG_DATA_HOME/xorg/Xorg.n.log where n is the display number of the Xorg server. The default may be in a different directory on some platforms. This option is only available when the server is run as root (i.e, with real-uid 0).

-logverbose [n]

Sets the verbosity level for information printed to the Xorg server log file. If the n value isn't supplied, each occur? rence of this option increments the log file verbosity level. When the n value is supplied, the log file verbosity level is set to that value. The default log file verbosity level is 3.

-modulepath searchpath

Set the module search path to searchpath. searchpath is a comma separated list of directories to search for Xorg server modules. This option is only available when the server is run as root (i.e, with real-uid 0).

-noautoBindGPU

Disable automatically setting secondary GPUs up as output sinks and offload sources. This is equivalent to setting the Auto? BindGPU xorg.conf(5) file option. To false.

-nosilk Disable Silken Mouse support.

-novtswitch

Disable the automatic switching on X server reset and shutdown to the VT that was active when the server started, if supported by the OS.

-pointer pointer-name

Use the xorg.conf(5) file InputDevice section called pointer-name as the core pointer. This option is ignored when the Lay? out section specifies a core pointer. In the absence of both a Layout section and this option, the first relevant InputDevice section is used for the core pointer.

-quiet Suppress most informational messages at startup. The verbosity level is set to zero.

-rgamma value

Set the red gamma correction. value must be between 0.1 and 10. The default is 1.0. Not all drivers support this. See also the -gamma, -bgamma, and -ggamma options.

-sharevts

Share virtual terminals with another X server, if supported by the OS.

-screen screen-name

Use the xorg.conf(5) file Screen section called screen-name. By default the screens referenced by the default Layout section are used, or the first Screen section when there are no Layout sections.

-showconfig

This is the same as the -version option, and is included for compatibility reasons. It may be removed in a future release, so the -version option should be used instead.

-showDefaultModulePath

Print out the default module path the server was compiled with.

-showDefaultLibPath

Print out the path libraries should be installed to.

-showopts

For each driver module installed, print out the list of options and their argument types.

-weight nnn

Set RGB weighting at 16 bpp. The default is 565. This applies only to those drivers which support 16 bpp.

-verbose [n]

Sets the verbosity level for information printed on stderr. If the n value isn't supplied, each occurrence of this option in? crements the verbosity level. When the n value is supplied, the verbosity level is set to that value. The default ver?

bosity level is 0.

-version

Print out the server version, patchlevel, release date, the op? erating system/platform it was built on, and whether it in? cludes module loader support.

KEYBOARD

The Xorg server is normally configured to recognize various special combinations of key presses that instruct the server to perform some action, rather than just sending the key press event to a client appli? cation. These actions depend on the XKB keymap loaded by a particular keyboard device and may or may not be available on a given configura? tion.

The following key combinations are commonly part of the default XKEY? BOARD keymap.

Ctrl+Alt+Backspace

Immediately kills the server -- no questions asked. It can be disabled by setting the DontZap xorg.conf(5) file option to a TRUE value.

It should be noted that zapping is triggered by the Termi? nate_Server action in the keyboard map. This action is not part of the default keymaps but can be enabled with the XKB option "terminate:ctrl_alt_bksp".

Ctrl+Alt+Keypad-Plus

Change video mode to next one specified in the configuration file. This can be disabled with the DontZoom xorg.conf(5) file option.

Ctrl+Alt+Keypad-Minus

Change video mode to previous one specified in the configura? tion file. This can be disabled with the DontZoom xorg.conf(5) file option.

Ctrl+Alt+F1...F12

For systems with virtual terminal support, these keystroke com? binations are used to switch to virtual terminals 1 through 12,

respectively. This can be disabled with the DontVTSwitch xorg.conf(5) file option.

CONFIGURATION

Xorg typically uses a configuration file called xorg.conf and configu? ration files with the suffix .conf in a directory called xorg.conf.d for its initial setup. Refer to the xorg.conf(5) manual page for in? formation about the format of this file.

Xorg has a mechanism for automatically generating a built-in configura? tion at run-time when no xorg.conf file or xorg.conf.d files are present. The current version of this automatic configuration mechanism works in two ways.

The first is via enhancements that have made many components of the xorg.conf file optional. This means that information that can be probed or reasonably deduced doesn't need to be specified explicitly, greatly reducing the amount of built-in configuration information that needs to be generated at run-time.

The second is to have "safe" fallbacks for most configuration informa? tion. This maximises the likelihood that the Xorg server will start up in some usable configuration even when information about the specific hardware is not available.

The automatic configuration support for Xorg is work in progress. It is currently aimed at the most popular hardware and software platforms supported by Xorg. Enhancements are planned for future releases.

FILES

The Xorg server config files can be found in a range of locations. These are documented fully in the xorg.conf(5) manual page. The most commonly used locations are shown here.

/etc/X11/xorg.conf	Server configuration file.
/etc/X11/xorg.conf-4	Server configuration file.
/etc/xorg.conf	Server configuration file.
/usr/etc/xorg.conf	Server configuration file.
/usr/lib/X11/xorg.conf	Server configuration file.
/etc/X11/xorg.conf.d	Server configuration directory.

/etc/X11/xorg.conf.d-4 Server configuration directory.

/etc/xorg.conf.d Server configuration directory.

/usr/etc/xorg.conf.d Server configuration directory.

/usr/lib/X11/xorg.conf.d Server configuration directory.

/var/log/Xorg.n.log Server log file for display n.

/usr/bin/? Client binaries.

/usr/include/? Header files.

/usr/lib/? Libraries.

/usr/share/fonts/X11/? Fonts.

/usr/share/X11/XErrorDB Client error message database.

/usr/lib/X11/app-defaults/? Client resource specifications.

/usr/share/man/man?/? Manual pages.

/etc/Xn.hosts Initial access control list for display n.

SEE ALSO

X(7), Xserver(1), xdm(1), xinit(1), xorg.conf(5), xvidtune(1), xkey? board-config (7), apm(4), ati(4), chips(4), cirrus(4), cyrix(4), fb? dev(4), glide(4), glint(4), i128(4), i740(4), imstt(4), intel(4), mga(4), neomagic(4), nsc(4), nv(4), openchrome (4), r128(4), rendi? tion(4), s3virge(4), siliconmotion(4), sis(4), sunbw2(4), suncg14(4), suncg3(4), suncg6(4), sunffb(4), sunleo(4), suntcx(4), tdfx(4), tga(4), trident(4), tseng(4), v4l(4), vesa(4), vmware(4),

Web site <https://www.x.org>.

AUTHORS

Xorg has many contributors world wide. The names of most of them can be found in the documentation, ChangeLog files in the source tree, and in the actual source code.

Xorg was originally based on XFree86 4.4rc2. That was originally based on X386 1.2 by Thomas Roell, which was contributed to the then X Con? sortium's X11R5 distribution by SGCS.

Xorg is released by the X.Org Foundation.

The project that became XFree86 was originally founded in 1992 by David Dawes, Glenn Lai, Jim Tsillas and David Wexelblat.

XFree86 was later integrated in the then X Consortium's X11R6 release by a group of dedicated XFree86 developers, including the following:

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Xorg source is available from the FTP server <ftp://ftp.x.org/>, and from the X.Org server <https://gitlab.freedesktop.org/xorg/>. Documen? tation and other information can be found from the X.Org web site <https://www.x.org/>.

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