

NAME

xvfb-run – run specified X client or command in a virtual X server environment

SYNOPSIS

xvfb-run [*options*] *command*

DESCRIPTION

xvfb-run is a wrapper for the **Xvfb**(1x) command which simplifies the task of running commands (typically an X client, or a script containing a list of clients to be run) within a virtual X server environment.

xvfb-run sets up an X authority file (or uses an existing user-specified one), writes a cookie to it (see **xauth**(1x)) and then starts the **Xvfb** X server as a background process. The process ID of **Xvfb** is stored for later use. The specified *command* is then run using the X display corresponding to the **Xvfb** server just started and the X authority file created earlier.

When the *command* exits, its status is saved, the **Xvfb** server is killed (using the process ID stored earlier), the X authority cookie removed, and the authority file deleted (if the user did not specify one to use). **xvfb-run** then exits with the exit status of *command*, except in error conditions (see **EXIT STATUS** below).

xvfb-run requires the **xauth** command to function.

OPTIONS

-a, --auto-servernum

Try to get a free server number, starting at 99, or the argument to **--server-num**.

-e file, --error-file=file

Store output from **xauth** and **Xvfb** in *file*. The default is */dev/null*.

-f file, --auth-file=file

Store X authentication data in *file*. By default, a temporary directory called *xvfb-run.PID* (where PID is the process ID of **xvfb-run** itself) is created in the directory specified by the environment variable **TMPDIR** (or */tmp* if that variable is null or unset), and the **tempfile**(1) command is used to create a file in that temporary directory called *Xauthority*.

-h, --help

Display a usage message and exit.

-n servernumber, --server-num=servernumber

Use *servernumber* as the server number (but see the **-a, --auto-servernum** option above). The default is 99.

-l, --listen-tcp

Enable TCP port listening in the X server. For security reasons (to avoid denial-of-service attacks or exploits), TCP port listening is disabled by default.

-p protocolname, --xauth-protocol=protocolname

Use *protocolname* as the X authority protocol to use. The default is *'.'*, which **xauth** interprets as its own default protocol, which is MIT-MAGIC-COOKIE-1.

-s arguments, --server-args=arguments

Pass *arguments* to the **Xvfb** server. Be careful to quote any whitespace characters that may occur within *arguments* to prevent them from regarded as separators for **xvfb-run**'s own arguments. Also, note that specification of *'-nolisten tcp'* in *arguments* may override the function of **xvfb-run**'s own **-l, --listen-tcp** option, and that specification of the server number (e.g., *':1'*) may be ignored because of the way the X server parses its argument list. Use the **xvfb-run** option **-n servernumber, --server-num=servernumber** to achieve the latter function. The default is *'-screen 0 1280x1024x24'*.

-w delay, --wait=delay

Ignored for compatibility with earlier versions.

ENVIRONMENT**COLUMNS**

indicates the width of the terminal device in character cells. This value is used for formatting diagnostic messages. If not set, the terminal is queried using **stty(1)** to determine its width. If that fails, a value of '80' is assumed.

TMPDIR

specifies the directory in which to place **xvfb-run**'s temporary directory for storage of the X authority file; only used if the **-f** or **--auth-file** options are not specified.

OUTPUT FILES

Unless the **-f** or **--auth-file** options are specified, a temporary directory and file within it are created (and deleted) to store the X authority cookies used by the **Xvfb** server and client(s) run under it. See **tempfile(1)**. If **-f** or **--auth-file** are used, then the specified X authority file is only written to, not created or deleted (though **xauth** creates an authority file itself if told to use use that does not already exist).

An error file with a user-specified name is also created if the **-e** or **--error-file** options are specified; see above.

EXIT STATUS

xvfb-run uses its exit status as well as output to standard error to communicate diagnostics.

- 0 **xvfb-run** only uses this exit status if the **-h**, **--help** option is given. In all other situations, this may be interpreted as success of the specified command.
- 1 **Xvfb** did not start correctly.
- 2 No command to run was specified.
- 3 The **xauth** command is not available.
- 4 The temporary directory that was going to be used already exists; since **xvfb-run** produces a uniquely named directory, this may indicate an attempt by another process on the system to exploit a temporary file race condition.
- 5 A problem was encountered while cleaning up the temporary directory.
- 6 A problem was encountered while using **getopt(1)** to parse the command-line arguments.

EXAMPLES

xvfb-run --auto-servernum --server-num=1 xlogo

runs the **xlogo(1x)** demonstration client inside the **Xvfb** X server on the first available server number greater than or equal to 1.

xvfb-run --server-args="--screen 0 1024x768x24" ico -faces

runs the **ico(1x)** demonstration client (and passes it the **-faces** argument) inside the **Xvfb** X server, configured with a root window of 1024 by 768 pixels and a color depth of 24 bits.

Note that the demo X clients used in the above examples will not exit on their own, so they will have to be killed before **xvfb-run** will exit.

BUGS

See the [Debian Bug Tracking System](https://bugs.debian.org/xvfb) (<https://bugs.debian.org/xvfb>). If you wish to report a bug in **xvfb-run**, please use the **reportbug(1)** command.

AUTHOR

xvfb-run was written by Branden Robinson and Jeff Licquia with sponsorship from Progeny Linux Systems.

SEE ALSO

Xvfb(1x), **xauth(1x)**