xdotool X11 input automation

CONCEPTS

xdotool fakes X11 input and drives windows. It needs an X server; under pure Wayland it only reaches XWayland apps.

search / getactivewindow fills the stack
↓ %1 %@
Window stack lives for one run
↓ cmd
windowactivate, key, ... act on %1 by default

Commands chain in one call and share the window stack: xdotool search --name Firefox windowactivate key ctrl+t.

Without --window, input goes through XTEST to the focused window. With --window it uses XSendEvent, which many apps ignore.

KEYBOARD

xdotool key *<keys>*
Press key combination(s)

xdotool key ctrl+shift+t
Combos are joined with +

xdotool key Return Tab
Several keys in a row

xdotool type "*<text>*"
Type a string

xdotool type --delay *<ms>* "*<text>*"
Slow down typing (default 12 ms)

xdotool key --clearmodifiers *<keys>*
Release held modifiers first

xdotool key --window *<id>* *<keys>*
Send to one window (XSendEvent)

xdotool keydown *<key>*
Hold a key down

xdotool keyup *<key>*
Release a held key

MOUSE

xdotool mousemove *<x>* *<y>*
Move pointer to absolute position

xdotool click *<button>*
Click: 1 left, 2 middle, 3 right

MOUSE (cont.)

xdotool click 4
Scroll up (5 scrolls down)

xdotool getmouselocation
Print x, y, screen, window

xdotool mousemove_relative -- <dx> <dy>
Move pointer by an offset

xdotool click --repeat *<n>* **--delay** *<ms>* **1**
Repeated clicks

xdotool mousedown *<button>*
Press and hold a button

xdotool mouseup *<button>*
Release a button

xdotool mousemove --window *<id>* *<x>* *<y>*
Position relative to a window

FIND WINDOWS

xdotool search --name *<regex>*
Windows whose title matches

xdotool search --class *<regex>*
Windows by WM_CLASS

xdotool search --onlyvisible *<regex>*
Only mapped windows

xdotool getactivewindow
Focused window id

xdotool selectwindow
Click a window to get its id

xdotool search --pid *<pid>*
Windows of one process

xdotool search --sync --class *<regex>*
Wait until a match appears

xdotool getwindowname *<id>*
Print a window title

WINDOW CONTROL

xdotool windowactivate *<id>*
Switch desktop, raise, focus

xdotool windowactivate --sync *<id>*
Wait until it is active

xdotool windowfocus *<id>*
Focus without raising

xdotool windowmove *<x>* *<y>*
Move the window

WINDOW CONTROL (cont.)

xdotool windowsize *<w>* *<h>*
Resize (pixels or %)

xdotool windowminimize *<id>*
Minimise a window

xdotool windowraise *<id>*
Raise to the top

xdotool windowclose *<id>*
Destroy the window

xdotool windowquit *<id>*
Ask the app to close

xdotool windowkill *<id>*
Kill the owning client

xdotool windowstate --add FULLSCREEN *<id>*
Set state (also --remove, --toggle)

xdotool getwindowgeometry --shell *<id>*
Position and size as variables

DESKTOPS

xdotool get_desktop
Current desktop number

xdotool set_desktop *<n>*
Switch to desktop n (0-based)

xdotool set_desktop --relative -- -1
Go to the previous desktop

xdotool set_desktop_for_window *<id>* *<n>*
Send a window to a desktop

SCRIPTING

xdotool exec *<cmd>*
Run a command inside a chain

xdotool sleep *<seconds>*
Pause inside a chain (fractions ok)

xdotool *<file>*
Run commands from a script file

RECIPES

Focus or launch an app

```
id=$(xdotool search --onlyvisible
--class firefox | head -1)
if [ -n "$id" ]; then xdotool
windowactivate "$id"
else firefox & fi
```