xrandr X11 display layout

CONCEPTS

Run plain xrandr first: output names (HDMI-1, eDP-1, ...) differ per driver, and * marks the active mode.

Output HDMI-1, eDP-1
↓ `--mode`
Mode size + rate
↓ `--pos`
Position in the screen
↓ `--fb`
Screen one big canvas

Outputs are placed on one shared canvas (the screen); a position is the output's top-left corner on it.

X11 only. Under Wayland, Xwayland's RandR is read-only; use the compositor's own tool (e.g. wlr-randr, swaymsg output).

Changes last until the X server restarts: put your command in a startup script (.xprofile, i3 config) to keep it.

QUERY

`xrandr`
Show outputs, modes, active mode

`xrandr --current`
Show state without re-probing hardware

`xrandr --verbose`
Detail incl. properties, gamma, transform

`xrandr --listmonitors`
List defined monitors

`xrandr --dryrun` *`<options>`*
Check a command without applying it

ENABLE AND MODE

`xrandr --output` *`<out>`* **`--auto`**
Enable at its preferred mode

ENABLE AND MODE (cont.)

`xrandr --output` *`<out>`* **`--off`**
Disable the output

`xrandr --output` *`<out>`* **`--mode`** *`<WxH>`*
Set resolution

`xrandr --output` *`<out>`* **`--mode`** *`<WxH>`* **`--rate`** *`<Hz>`*
Set resolution and refresh rate

`xrandr --output` *`<out>`* **`--primary`**
Make this the primary output

LAYOUT

`xrandr --output` *`<out>`* **`--pos`** *`<X>`***`x`***`<Y>`*
Place at exact pixel position

`xrandr --output` *`<out>`* **`--left-of`** *`<other>`*
Put to the left

`xrandr --output` *`<out>`* **`--right-of`** *`<other>`*
Put to the right

`xrandr --output` *`<out>`* **`--above`** *`<other>`*
Put above

`xrandr --output` *`<out>`* **`--same-as`** *`<other>`*
Mirror another output

`xrandr --output` *`<a>`* **`--auto --output`** *`<b>`* **`--auto --right-of`** *`<a>`*
Configure two outputs in one call

ROTATE, SCALE, TRANSFORM

`xrandr --output` *`<out>`* **`--rotate left`**
Rotate counter-clockwise

`xrandr --output` *`<out>`* **`--rotate right`**
Rotate clockwise

`xrandr --output` *`<out>`* **`--scale`** *`<X>`***`x`***`<Y>`*
Scale the output's picture