

Sunsetting XRandR Brightness

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One of the first features I added back then was smooth brightness changes. PowerDevil supports three ways of changing screen brightness: through XRandR configuration, through DDC (display data channel, for desktop monitors, experimental and not built by default), and by writing to sysfs (`/sys/class/backlight` or `/sys/class/leds`). Since the latter requires privileges and uses a helper binary through KDE's KAuth framework, I only implemented the animation for the XRandR code path, which was executed in the same process.

Obviously, XRandR doesn't work on Wayland, and it seems that modern graphics drivers don't support changing brightness through it anymore either. I recently sat down and wrote a patch to have the helper binary execute a similar animation. KAuth works quite magically by exposing methods defined in an `.actions` file through Dbus and then calling them as slots through Qt's meta object. Unfortunately, the way it is designed doesn't allow for delayed replies, which I wanted to use so the job only finished once the animation was completed in order to keep PowerDevil's state consistent. I then found that KAuth randomly keeps its helper running for 10 seconds, more than enough for a 250ms animation.

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[KDE](#)

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Links:

[1] <http://www.tuxmachines.org/taxonomy/term/108>

[2] <https://blog.broulik.de/2020/05/sunsetting-xrandr-brightness/>