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# Try to make gstreamer x11imagesrc bearable

OBS has x11 screen capture (terrible perf) or window capture with xcomposite (good). FFMPEG has x11grab (terrible) or kmsgrab (good).

As far as I know, gstreamer can't do kms capture, can't do GL image capture, nor has an xcomposite equivalent. I haven't found an equivalent high performance capture with gstreamer short of doing something like just grabbing the texture and pushing it through an appsrc.

```
/* Create the source */
ximagesrc = gst_element_factory_make("ximagesrc", "ximagesrc");
/* If you're running over SSH, equivalent to setting DISPLAY=:0 */
g_object_set(ximagesrc, "display-name", ":0", NULL);

/* This is maybe a secret to getting usable screen capture performance
with ximagesrc for this use case.
If remote=FALSE, I've found that this drops a lot of frames, and may end
up needing have use-damage=true.
If remote=TRUE, it appears to be significantly more efficient, and you can
use use-damage=false if you want. */
g_object_set(ximagesrc, "remote", TRUE, NULL);

/* This one depends on the use case. If not a lot is changing, true is
better.
If a lot of things are going to change on each frame, false is better. */
g_object_set(ximagesrc, "use-damage", TRUE, NULL);
/* Create the caps filter. If you try capturing from the ximagesrc at too
high of
a framerate, you will run into massive stuttering and dropped frames. At
that point,
it may be better to not limit it at all. */
caps = gst_caps_new_simple("video/x-raw",
                           "framerate", GST_TYPE_FRACTION, 20, 1,
                           NULL);
```

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