Multiple Rectangle Cropping

RFC to extend the selection API

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technology

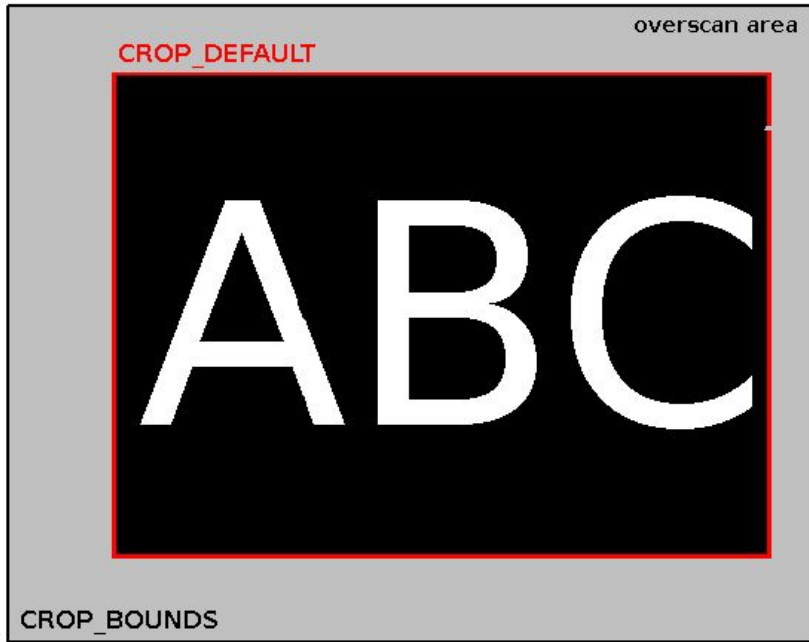# Current Capabilities
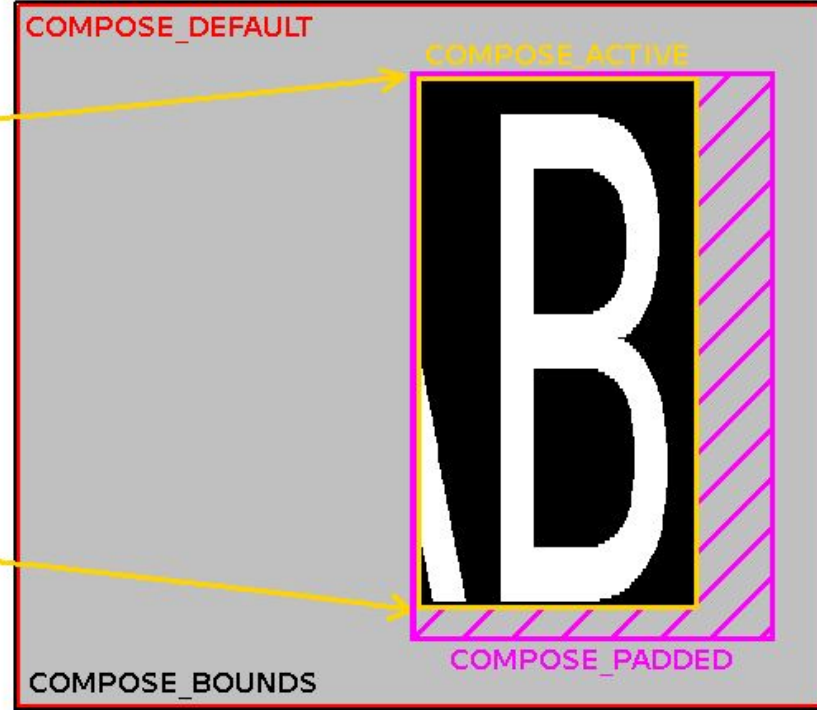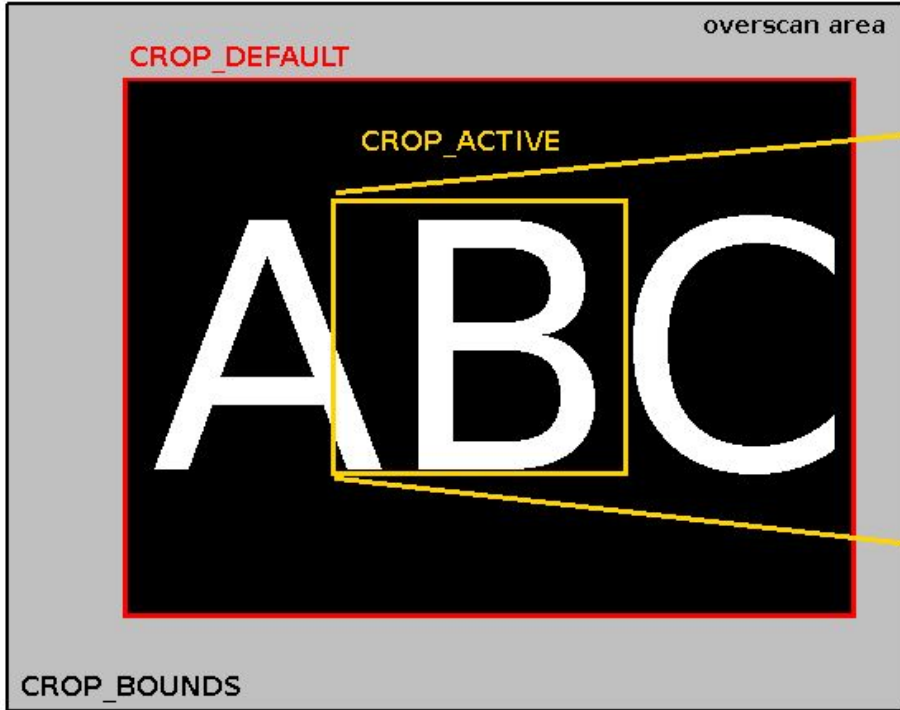
Proposed Capabilities
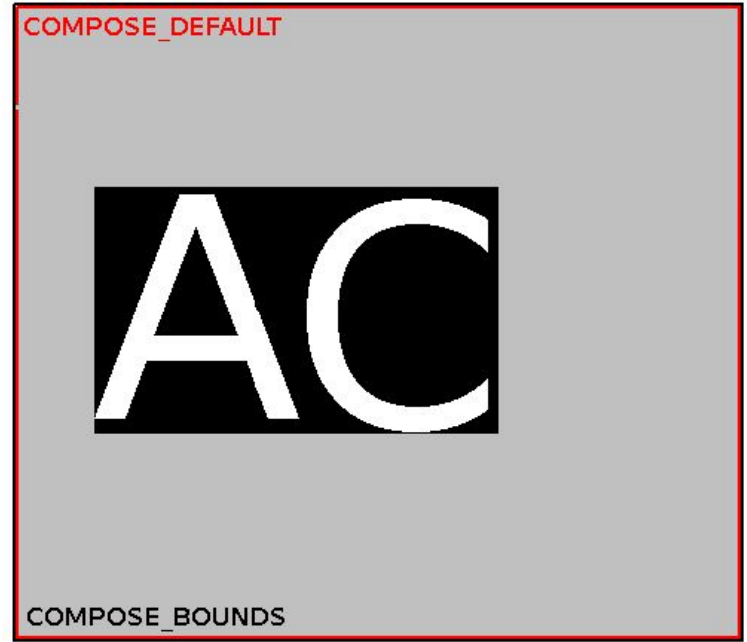
Applications

Support in sensors

FIGURE 39: EXAMPLE OF 4 MULTIPLE FRAMES READ-OUT
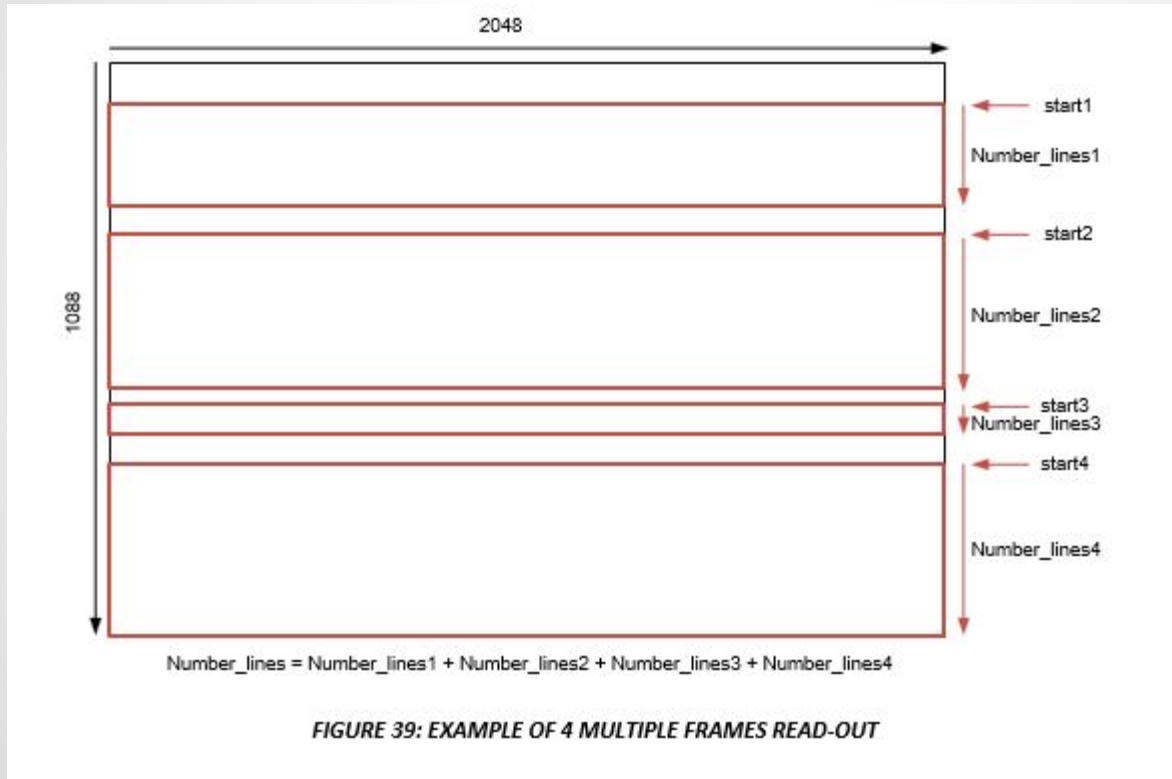
Why not in userland?

- Increase FPS
- Reduce data transfer

- More potatoes per minute
- More accurate speed tickets :P
- Reduce power consumption

Latest RFC

```
struct v4l2_subdev_selection {          struct v4l2_ext_rect {
        __u32 pad;                              __s32   left;
        __u32 target;                           __s32   top;
        __u32 flags;                            __u32   width;
-       struct v4l2_rect r;                     __u32   height;
-       __u32 reserved[8];                      __u32   reserved[4];
+       union {                         };
+               struct v4l2_rect r;
+               struct v4l2_ext_rect *pr;
+       };
+       __u32 rectangles;
+       __u32 reserved[7];
 };
```

+ Helpers: multi to legacy, legacy to multi
+ ioctl32

Why v4l2_ext_rectangle?

- Opportunity to remove sign on sizes.

- Opportunity to add fields to the rectangles (ie tracking areas)