

Component description

This component is a common utility component.

This creates a frame buffer, it uses soclib-fb from the utilities for a SDL-based viewer window.

For now, the only supported mode are YUV-422 and YUV-420. This may change in the future.

User may directly modify a shared-memory buffer, and update it to screen on-demand.

Component usage

Object

```
soclib::common::FbController *fb;
```

Instanciation

```
soclib::common::FbController(  
    const std::string &basename,  
    unsigned long width,  
    unsigned long height,  
    int subsampling );
```

basename

The name of the created framebuffer window

width

Width of the window

height

Height of the window

subsampling

YUV subsampling, valid values are 422 and 420

Usage

```
const unsigned long width = 320;  
const unsigned long height = 240;  
  
soclib::common::FbController fb("fb0", width, height, 422);  
  
...  
  
// sample setter function:  
  
void set(soclib::common::FbController &fb, int line, int column, uint8_t y, uint8_t u, uint8_t v)  
{  
    uint8_t* buffer = (uint8_t*)fb.surface();  
    const unsigned long width = fb.m_width;  
    const unsigned long height = fb.m_height;  
  
    buffer[          line*width  +column ] = y;  
    buffer[width*height  +line*width/2+column/2] = u;  
    buffer[width*height*3/2+line*width/2+column/2] = v;
```

```
        fb->update();  
    }
```