

## libocelli - Feature #237

### Implement icons

02.09.2022 18:13 - Maximilian Seesslen

<b>Status:</b>	Erledigt	<b>Beginn:</b>	02.09.2022
<b>Priorität:</b>	Normal	<b>Abgabedatum:</b>	
<b>Zugewiesen an:</b>	Maximilian Seesslen	<b>% erledigt:</b>	0%
<b>Kategorie:</b>		<b>Geschätzter Aufwand:</b>	0.00 Stunde
<b>Zielversion:</b>	v0.1.0	<b>Aufgewendete Zeit:</b>	0.00 Stunde
<b>CS Zielversion:</b>			

#### Beschreibung

Does Biwak already support such thing? Expect the drawLine.  
Set background color; Alpha-Channel would be nice.  
Its not an Widget.

Like Qt: `button->setIcon(QIcon("open.xpm"));`  
48x48x4 9216 Bytes  
only alpha:  
48x48x1 2304 Bytes

#### Icons

<https://www.iconfinder.com/search/icons?q=pretzel>  
<https://www.iconfinder.com/search/icons?q=pretzel&price=free>  
git clone <https://github.com/google/material-design-icons/>

imagemagick (graphicsmagic provides GIF)

```
#!/bin/bash
```

```
set -e -u
```

```
mkdir -p 32
```

```
for ifile in *.png; do
```

```
    convert $ifile -define h:format=a -depth 1 -background white -alpha off -resize 32x32 32/${ifile%.*}.h
```

```
    convert $ifile -define h:format=rgb -depth 1 -background white -alpha off -resize 32x32 32/${ifile%.*}.png
```

```
# convert $ifile -define h:format=rgb -depth 1 -background white -alpha deactivate -resize 32x32 32/${ifile%.*}.png
```

```
    convert $ifile -background white -alpha remove -flatten -alpha off -depth 1 -resize 32x32 32/${ifile%.*}.png
```

```
    convert 32/${ifile%.*}.png -monochrome 32/${ifile%.*}_1.png
```

```
done
```

There is an problem with the argument order in imagemagick. The examples above only work with pngs with alpha channels, not SVGs;

This works with SVGs:

```
convert -define h:format=a -depth 8 -background none -resize 48x48 $ifile 48/${ifile%.*}_alpha1.h
```

#### Historie

#1 - 02.09.2022 18:22 - Maximilian Seesslen

- Beschreibung aktualisiert

**#2 - 02.09.2022 18:29 - Maximilian Seesslen**

- Beschreibung aktualisiert

**#3 - 02.09.2022 18:34 - Maximilian Seesslen**

- Beschreibung aktualisiert

**#4 - 05.09.2022 09:49 - Maximilian Seesslen**

- Beschreibung aktualisiert

**#5 - 06.09.2022 16:24 - Maximilian Seesslen**

One channel:

FG: 0xFF

BG: 0x10

fAlpha: 0xFF

bAlpha: (0xFF-0xFF) = 0x0

nFGg= (0xFF\*0xFF)/0xFF = 0xFF

nBG= (0x10\*0x0)/0xFF = 0x00

fAlpha: 0x0

bAlpha: ( 0xFF - 0x00 ) 0xFF

nFGg= (0xFF\*0x0)/0xFF = 0x0

nBG= (0x10\*0xFF)/0xFF = 0x10

One channel:

FG: 0x20

BG: 0x10

fAlpha = 0x7f

bAlpha = 0x80

nFGg= (0x20\*0x7F)/0xFF = 0xF

nBG= (0x10\*0x80)/0xFF = 0x8; 0xF+0x8=0x17

```
uint8_t blend(fg, bg, alpha)
```

```
{  
    return ( ( fg * alpha ) / 0xFF ) + ( ( bg * ( 0xFF - alpha ) ) / 0xFF )  
}
```

```
assert( 0xFF, 0x00, 0xFF) == 0xFF
```

```
assert( 0xFF, 0x10, 0x00) == 0x10
```

**#6 - 06.09.2022 20:53 - Maximilian Seesslen**

- Beschreibung aktualisiert

**#7 - 07.09.2022 10:05 - Maximilian Seesslen**

- Beschreibung aktualisiert

**#8 - 19.09.2022 22:20 - Maximilian Seesslen**

- Status wurde von Neu zu Erledigt geändert