



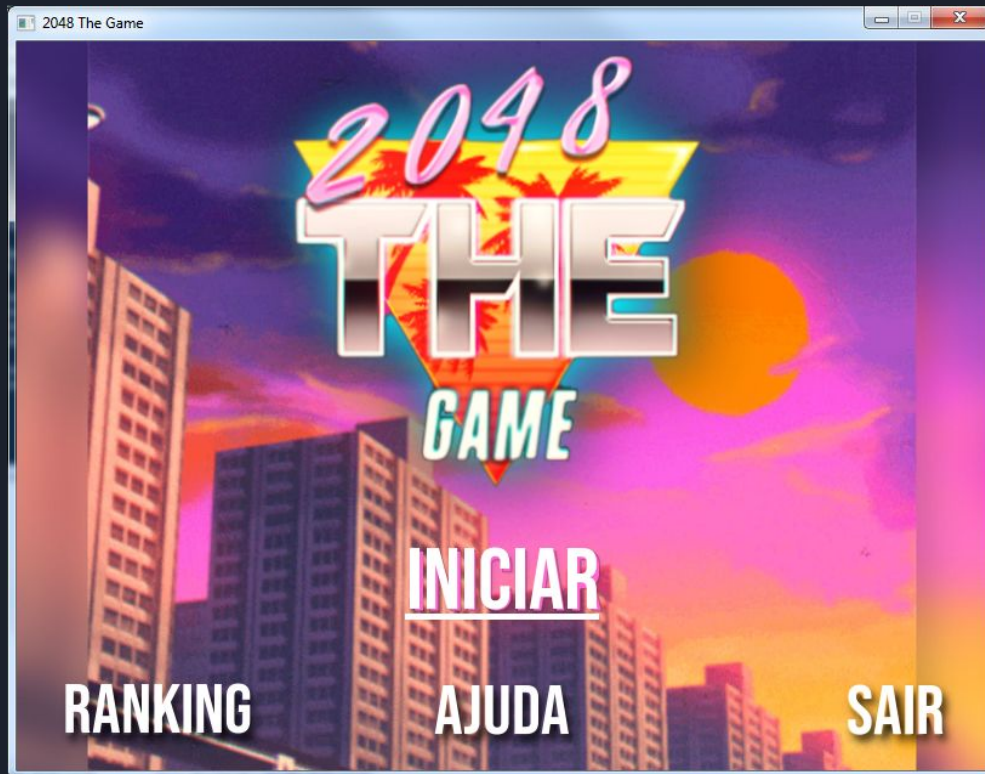
Minicurso Allegro 5

Aula 3



Animações

Lab1 2020





Animações Básicas

```
while (true) {  
    ...  
    al_draw_text(font, al_map_rgb(0,0,0), 100, 100, ALLEGRO_ALIGN_CENTER, "ola Mundo!");  
    ...  
}
```



Animações Básicas

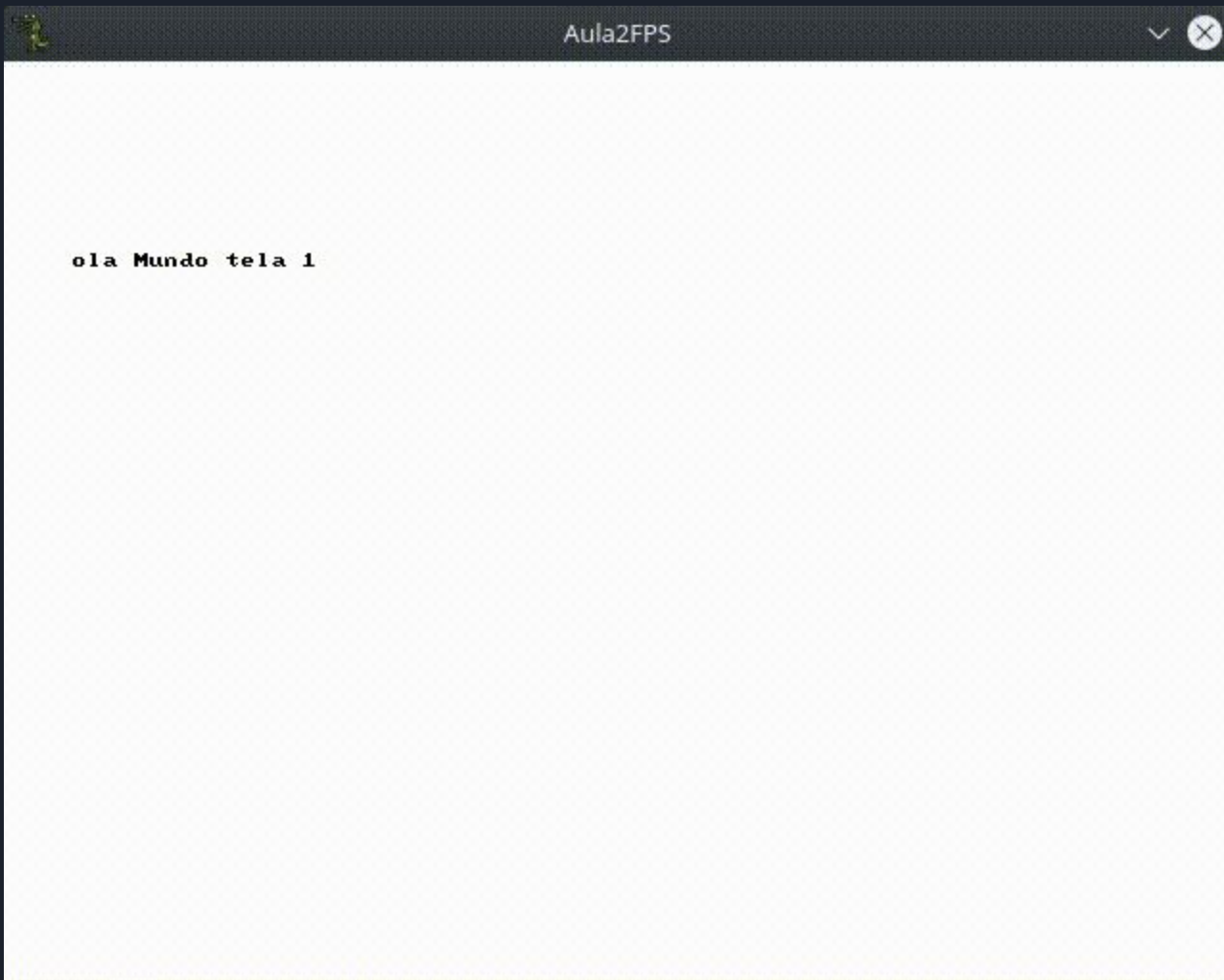
```
int x = 100;

while (true) {

    ...

    al_draw_text(font, al_map_rgb(0,0,0), x++, 100, ALLEGRO_ALIGN_CENTER, "ola Mundo!");

    ...
}
```





Animações Básicas

```
int x = 100, y = 100;

while (true) {

    ...

    al_draw_text(font, al_map_rgb(0,0,0), x++, y++, ALLEGRO_ALIGN_CENTER, "ola Mundo!");

    ...
}
```





Animações Básicas

```
int x = 100;

while (true) {

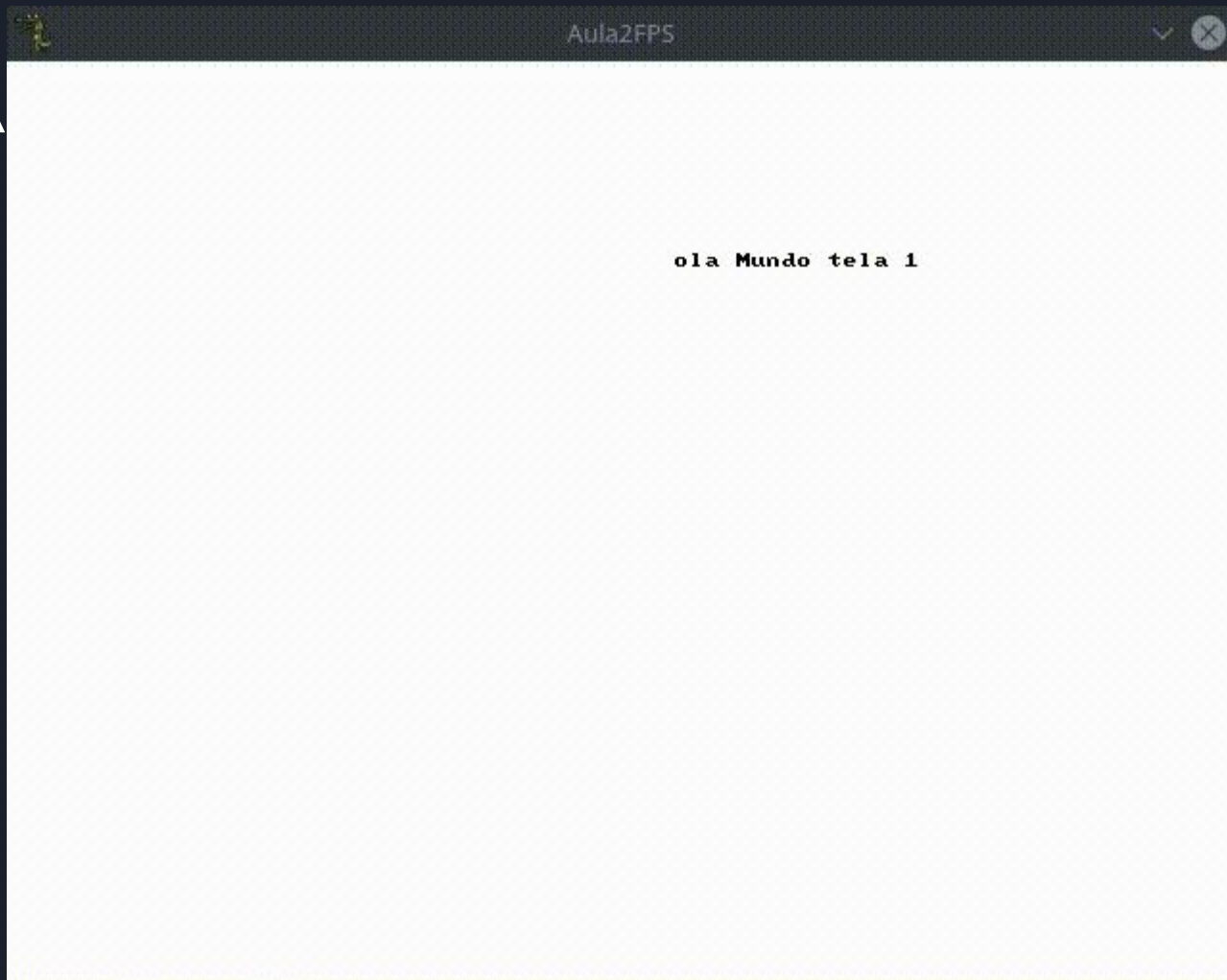
    ...

    al_draw_text(font, al_map_rgb(0,0,0), x++, 100, ALLEGRO_ALIGN_CENTER, "ola Mundo!");

    if (x > TAMANHO_TELA) {
        x = 0;
    }

    ...
}
```

A





Animações Básicas

Tem algo faltando...

```
int x = 100;

while (true) {

    ...

    al_draw_text(font, al_map_rgb(0,0,0), x++, 100, ALLEGRO_ALIGN_LEFT, "ola Mundo!");

    if (x > TAMANHO_TELA) {
        x = -140;
    }

    ...

}
```





Desenho de Primitivas

- High level drawing routines
 - Pixel-precise output
 - `al_draw_line`
 - `al_draw_triangle`
 - `al_draw_filled_triangle`
 - `al_draw_rectangle`
 - `al_draw_filled_rectangle`
 - `al_draw_rounded_rectangle`
 - `al_draw_filled_rounded_rectangle`
 - `al_calculate_arc`
 - `al_draw_pieslice`
 - `al_draw_filled_pieslice`
 - `al_draw_ellipse`
 - `al_draw_filled_ellipse`

Desenho de Triângulos

`al_draw_filled_triangle`

```
void al_draw_filled_triangle(float x1, float y1, float x2, float y2,  
                             float x3, float y3, ALLEGRO_COLOR color)
```

Source Code

Draws a filled triangle.

Parameters:

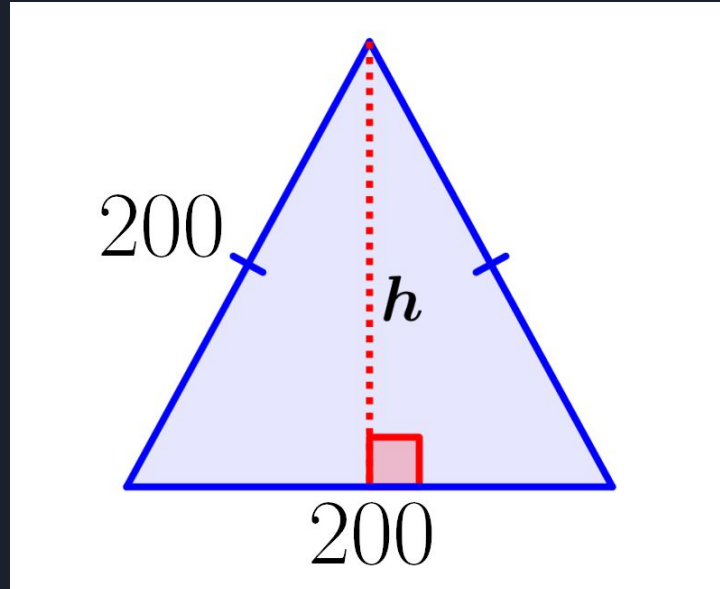
- x1, y1, x2, y2, x3, y3 - Three points of the triangle
- color - Color of the triangle

See also: `al_draw_triangle`

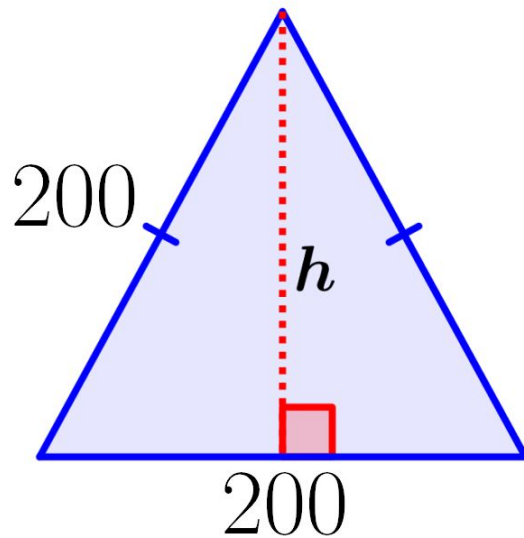
Examples:

- `ex_prim.c`

Desenho de Primitivas



Desenho de Primitivas



$$h = \frac{l\sqrt{3}}{2} = 173.20\dots$$

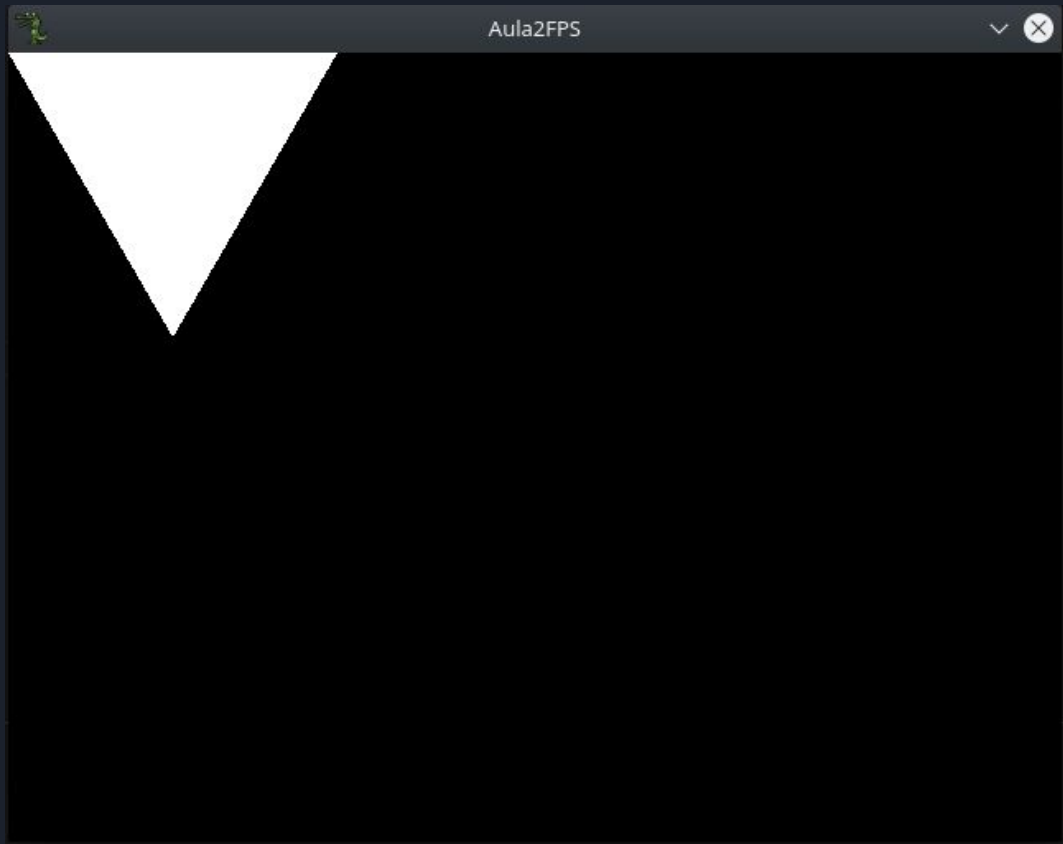



```
while (true) {
```

```
...
```

```
al_draw_filled_triangle(0, 0, 100, 173.2, 200, 0, al_map_rgb(255,255,255));
```

```
...
```



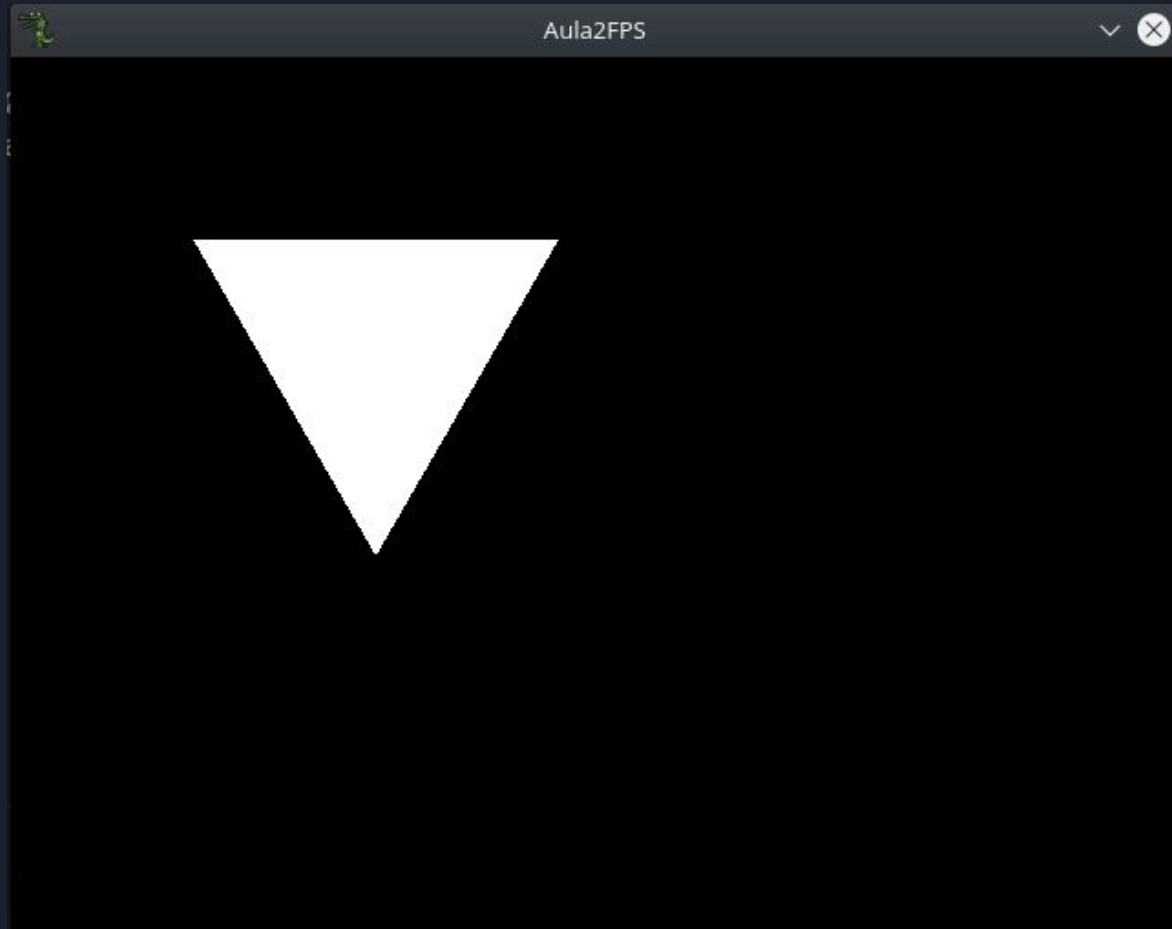


```
while (true) {
```

```
...
```

```
al_draw_filled_triangle(0+100, 0+100, 100+100, 173.2+100, 200+100, 0+100, al_map_rgb(255,255,255));
```

```
...
```





Input de mouse

Código no Aula3Primitivas.c



Desafio

1. Fazer o triângulo seguir o mouse



Desafio

2. Centralizar o mouse no triângulo