

NAME

MiniLibX - Simple Graphical Interface Library for students

SYNOPSIS

```
#include <mlx.h>
```

```
void *  
mlx_init ();
```

DESCRIPTION

MiniLibX is an easy way to create graphical software, without any X-Window/Cocoa programming knowledge. It provides simple window creation, a drawing tool, image and basic events management.

BSD/LINUX X-WINDOW CONCEPT

X-Window is a network-oriented graphical system for Unix. It is based on two main parts:

On one side, your software wants to draw something on the screen and/or get keyboard & mouse entries.

On the other side, the X-Server manages the screen, keyboard and mouse (It is often referred to as a "display").

A network connection must be established between these two entities to send drawing orders (from the software to the X-Server), and keyboard/mouse events (from the X-Server to the software).

MACOSX CONCEPT

The MacOSX operating system handles graphical access to the screen (or "display").

On one side, your software wants to draw something on the screen and/or get keyboard & mouse entries.

On the other side, the underlying MacOSX graphical framework that handles the screen, the windowing system, keyboard and mouse.

A connection between these two entities must be established.

INCLUDE FILE

mlx.h should be included for a correct use of the MiniLibX API. It only contains function prototypes, no structure is needed.

LIBRARY FUNCTIONS

First of all, you need to initialize the connection between your software and the display. Once this connection is established, you'll be able to use other MiniLibX functions to send the graphical orders, like "I want to draw a yellow pixel in this window" or "did the user hit a key?".

The **mlx_init** function will create this connection. No parameters are needed, and it will return a *void ** identifier, used for further calls to the library routines.

All other MiniLibX functions are described in the following man pages:

mlx_new_window	: manage windows
mlx_pixel_put	: draw inside window
mlx_new_image	: manipulate images
mlx_loop	: handle keyboard or mouse events

LINKING MiniLibX on BSD/Linux and X-Window

To use MiniLibX functions, you'll need to link your software with several libraries, including the MiniLibX library itself. To do this, simply add the following arguments at linking time:

```
-lmlx -lXext -lX11
```

You may also need to specify the path to these libraries, using the **-L** flag.

LINKING MiniLibX on MACOSX

To use MiniLibX functions, you'll need to link your software with the MiniLibX library, and several system frameworks:

-lmlx -framework OpenGL -framework AppKit

You may also need to specify the path to the MiniLibX library, using the **-L** flag.

RETURN VALUES

If **mlx_init()** fails to set up the connection to the graphical system, it will return NULL, otherwise a non-null pointer is returned as a connection identifier.

SEE ALSO

mlx_new_window(3), mlx_pixel_put(3), mlx_new_image(3), mlx_loop(3)

AUTHOR

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