

X Window Manager: User Manual

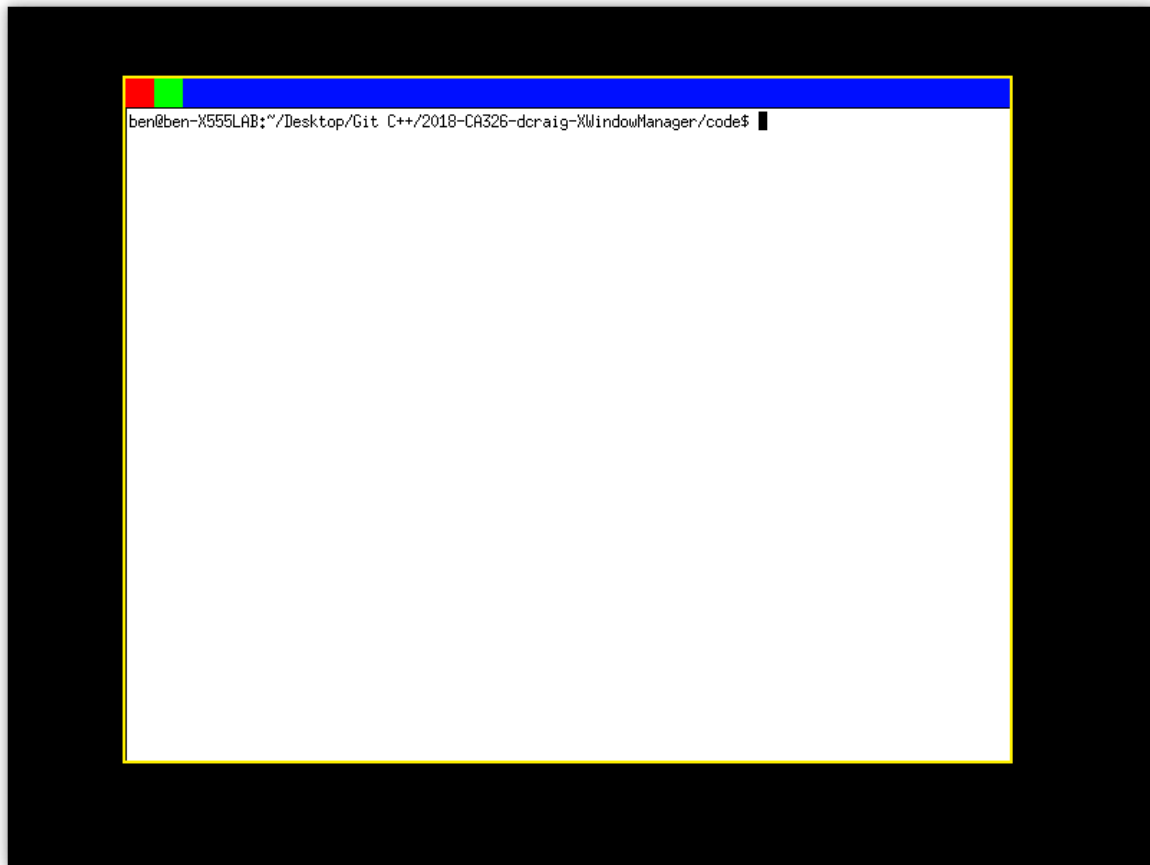
Third Year Project

By Ben Sudzius and David Craig

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1. Example Display



Red Button:	The exit button. Closes the frame and everything within.
Green Button:	The maximise button. Enlarges the window to fill the screen.
Blue Bar:	The title bar. Used for moving and focusing windows
Yellow Frame:	The frame that contains the client, title bar and title buttons.
White Window:	The client window. This the active application that is opened.
Black Background:	The root window. This is where all new programs are displayed.

2. Keyboard Shortcuts

Open new terminal window:	Alt + Return
Open DMenu:	Alt + F2
Close focused window:	Alt + F4
Switch to next window:	Alt + Tab
Maximise window:	Alt + Up
Move and resize window to right half of screen:	Alt + Right Arrow Key
Move and resize window to left half of screen:	Alt + Left Arrow key
Exit window manager:	Alt + Escape

3. Launching the Window Manager

The first thing you will notice when you launch the window is a blank screen. Don't worry, the program is not broken. This is the initial state of the program. From here you can execute key and mouse commands to launch and manipulate windows. Most commands use the use of a modifier key, which in our program is the **Alt** key, and another key or mouse click at the same time. Additionally there are some commands which only require the mouse.

4. Window Manager Functions

4.1 Move a window

Window managers allow you to move a position all of the windows displayed on the screen. This is to allow the user to place window where they prefer them to be. If you would like to reposition a window open on the screen there are several ways to do it:

- Move the mouse cursor over the title bar (blue). Holding the left mouse key, drag the mouse across the screen and release the button when you are satisfied where you have placed the window.
- Ensure that the window is in focus by left clicking it. Hold down the Alt key and press the following keys to move the window:
 - Pressing the left key moves and resizes the window to the left half of the screen.
 - Pressing the right key moves and resizes the window to the right half of the screen.
 - Pressing the up key moves and resizes the window to fill the whole screen.

4.2 Resize a window

The function of resizing is very important in window managers as it allows the user to enlarge windows for a clearer view or to make them smaller to make more space for other windows. If you would like to resize the window to make it smaller or bigger you can do one of the following:

- Move the mouse cursor to the anywhere within the frame(excluding the exit or maximise button). Hold the Alt key and press and hold the right mouse button. Move the mouse until you reach a desired size and release the Alt key and the right mouse button.
- Ensure that the window is in focus by left clicking it. Hold down the Alt key and press the following keys to move the window:
 - Pressing the left key moves and resizes the window to the left half of the screen.
 - Pressing the right key moves and resizes the window to the right half of the screen.
 - Pressing the up key moves and resizes the window to fill the whole screen.

4.3 Open a new program

If you are unable to open a program in your window manager it means that you aren't able to do anything. Since a window managers purpose is to handle windows it's very important for you to know how to launch a new program. If you would like to launch a new program you can do it in one of the following ways:

- Hold down Alt and press the Return key. This will launch a new terminal window. You can enter the desired program and launch it from the terminal.
- Hold down Alt and press the F2 key. This will launch DMenu application. You can then type in the program of your choice and press return to launch it:

4.4 Close an open window

You might want to close open windows in cases such as your no longer using the program or there are too many on the screen. If you would like to close a program you can do it in one of the following ways:

- Move the mouse cursor to the red exit button on the top left of the window of your choice. Press this with the left mouse button. This will close the open window.
- Ensure a window is in focus by left clicking anywhere within the frame(excluding the exit or maximise button). Hold Alt and press the F4 key to close the focused window.

4.5 Switch and focus to a window

Switching window allows you to type and interact with the application opened. With the focus set it also specifies which window becomes affected by the keyboard shortcuts. If you would like to switch and focus to a certain window or program you can do it in one of the following ways:

- Move the mouse cursor over the open window. Left mouse click anywhere apart from the exit button or the maximise button. This will bring the window to the top and focus on it.
- Move mouse cursor over the open window. Press and hold the Alt key and press the left mouse button anywhere apart from the exit button or the maximise button. This will switch to the window and will bring it to the top and focus on it.
- Press and hold the Alt key and press the Tab key. This will switch to the next window and will bring it to the top and focus on it.

4.6 Exit the window manager

Although you wouldn't do this very often, if there is reason for wanting to exit the window manager, you are able to do it. If you would like to exit out of the window manager you can do it in the following way:

- Press and hold the Alt key and press the Escape key. This will close all programs and exit out of the window manager.