

In the beginning ...

In the beginning was the command line. To get the computer to do something, you had to type a command to the computer. In the early days, you typed these commands punched paper tape, or punched cards which you then fed to the computer. Later, you could type these commands on a typewriter-like interactive terminal. Although powerful, using this method to control a computer required you to know a vast collection of commands, along with their arguments, options, and variations.

Around 1980, researchers at the Stanford Research Institute developed the precursors for a new way to interact with the computer through the use of a mouse. Later, researchers at Xerox PARC developed the idea further, Apple adopted it for the first Macintosh in

1983, and then Microsoft in 1985. Now, most people don't remember any other way.

GUI Basics

A typical GUI application, as seen in Figure 1, has a main application window. It has a title bar at the top, with icons to close and resize it. In this example, the window has a menu bar with pull-down menus, some panes with information, scrollbars, buttons, a status bar at the bottom.

Technically, all the items on the screen are windows, some large, some small. Some contain other windows. A button is a small window that has a border and a text in it. A scrollbar is a window that has small triangle-buttons and a slider. The buttons and the slider are

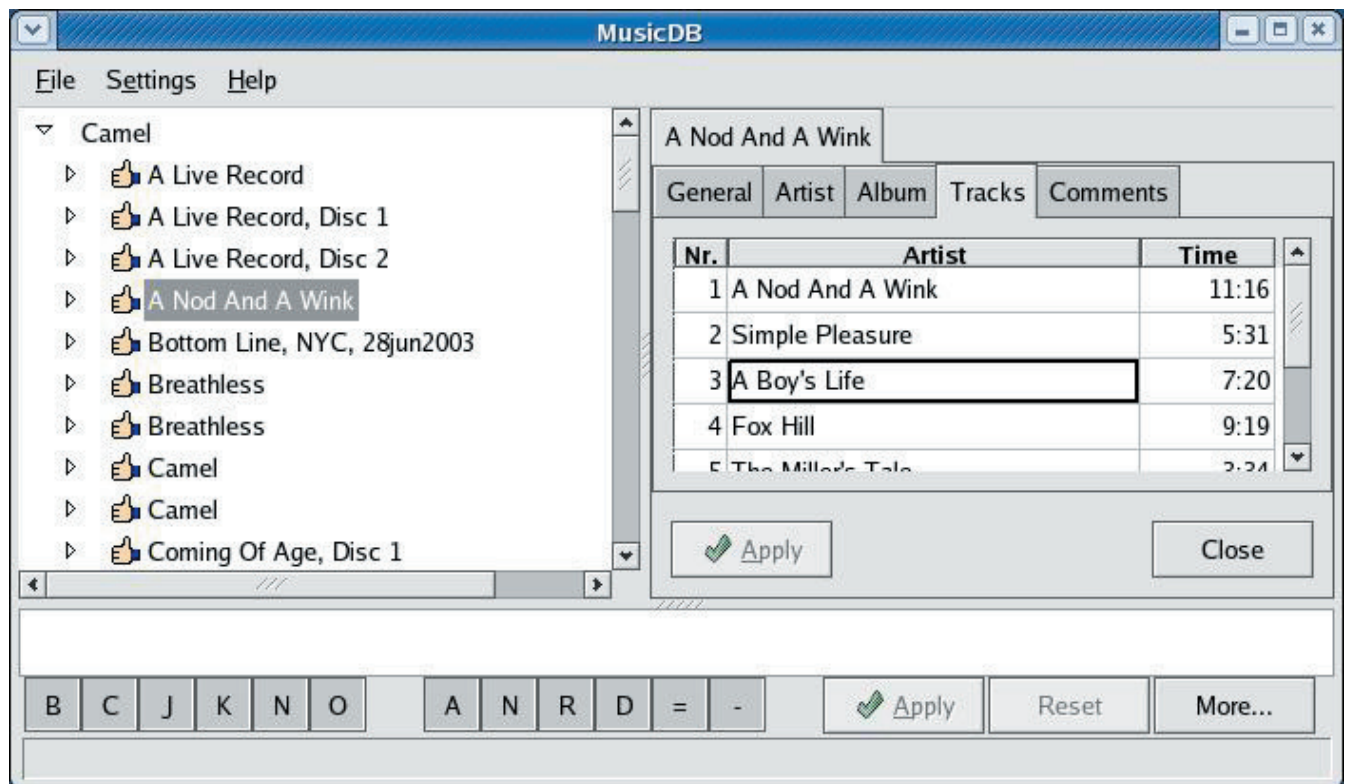


Figure 1: A typical GUI application