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## Lifebook B Series Touchscreen Driver

For Kernel 2.6 you need a [special driver](#) -- for Linux kernel 2.4 you can use the driver below.

This touchscreen driver for the Lifebook B series can only be used for kernel 2.4. Initially this driver was developed by Harald Hoyer for XFree 3.x.x. His driver for XFree 3.x.x can be found at [www.parzelle.de](http://www.parzelle.de). Harald also did the major work of reverse engineering the protocol of the touchscreen.

This driver for XFree 4.x.x is a complete rewrite and was developed by me on a Lifebook 2175 B but it should work on earlier versions of this notebook as well as newer versions. Maybe Fujitsu chooses to provide me a more recent model of this cool machine if they like my driver as I do ;-).

### Features

- Click with the pen only (Just touch the surface of the touchscreen for a short time)
- Drag with the pen only (Touch the surface and remain on the same point for a while. After this a MousePress-event is issued. --> now you can drag an item around)
- Configurable behaviour of the touchpanel using timers ([see advanced configuration](#))
- Virtual Screen support (thanks to Ralf Z.)

### Installation/Configuration

1. Download the [binary tarball](#) and extract its content to some directory (tar xzvf **tarballname**). Copy the file "lbtouch\_drv.o" to the appropriate location ("/usr/X11R6/lib/modules/input").
2. Insert the lines below to the file `/etc/X11/XF86Config-4`

```
Section "InputDevice"
    Identifier "touchscreen"
    Driver "lbtouch"
    Option "Device" "/dev/psaux"
    Option "DeviceName" "touchscreen"
    Option "MinX" "98"
    Option "MinY" "43"
    Option "MaxX" "940"
    Option "MaxY" "925"
```

```
Option "ReportingMode" "Raw"
Option "Emulate3Buttons"
Option "Emulate3Timeout" "50"
Option "SendCoreEvents"
EndSection
```

3. Add the line below to the file `/etc/X11/XF86Config-4` to the section **ServerLayout** .

```
InputDevice "touchscreen" "CorePointer"
```

If you want to do the calibration read the file `Readme.calibration` for further details but the calibration is not necessary to use the touchscreen.

4. It is **EXTREMELY Important** that you don't have two drivers configured which use the same PS2-device (`/dev/psaux`). You **DO NOT** need to have an extra mouse-driver for the quick-pointing device which is integrated to the keyboard. It is also handled by the touchscreen-driver. If you want to be sure just delete all mouse-related stuff from your XFree-Configfile (`/etc/X11/XF86Config-4`).

## Advanced Configuration

If you are not confident with the default behaviour of your touchpanel you can configure certain timers which change its behaviour.

<u>Option</u>	<u>Description</u>	<u>Default-Value</u>
ClickTimer	This timer starts to run if the screen is touched with the pen. If the pen untouches the screen before the timer expires a "left Mouse click" is produced.	500 ms
DragTimer	This timer also starts to run as soon as the screen is touched. If the pen stays within a radius of "MoveLimit" (see below) pixels UNTIL this timer is expired a "mouse press" event is generated.	300 ms
Emulate3Timeout	If both buttons are pressed/released before this timer expires a "middle press/release"-event is generated. This timer starts to run as soon as a button is pressed.	70 ms
MoveLimit	If the pen moves out of this radius a "mouse-press"-event becomes impossible.	12 Pixels

## Advanced Example

```
... (see above)
Option "ReportingMode" "Raw"
Option "Emulate3Buttons"
```

```
Option "Emulate3Timeout" "50"  
Option "DragTimer" "0"  
Option "ClickTimer" "0"  
Option "SendCoreEvents"  
EndSection
```

If you find bugs or if you have comment/wishes please send mail to [lifebook@conan.de](mailto:lifebook@conan.de)

## Download/Stable

Since no one seemed to complain about the unstable release V0.7.0 I decided to declare the 0.7.x-series stable.

The 0.7.x releases are a major step forward. It includes a new calibration program, so the mouse-pointer is always exactly under the pen. To do the calibration have a look at the file "README.calibration" which is included in the [tarball](#). At the moment you have to edit some configuration files by hand. But if you can't do that don't worry. You DO NOT HAVE TO do the calibration.

Please note: The binary tarballs for V0.7.x are only for XFree V4.2.x. If you want to run the driver on 4.1.x you have to compile from the sources or use V0.6.8 (I recommend upgrading X to V 4.2.x)

Binary V0.7.4 (for Xfree 4.2 and higher)	<a href="#">lbtouch-0.7.4.tar.gz</a>
Binary V0.7.3	<a href="#">lbtouch-0.7.3.tar.gz</a>
Sources V0.7.4	<a href="#">lbtouch-0.7.4-src.tar.gz</a>
Sources V0.7.3	<a href="#">lbtouch-0.7.3-src.tar.gz</a>