Posted by Giorgio on Wed, 09 Aug 2017 14:16:19 GMT
View Forum Message <> Reply to Message

Hi there,
I am porting an application developed with U++ on Windows to a raspberry platform. The raspberry is a Pi 3 Model B, with the latest noobs/raspbian as operating system. The raspberry has attached a EloTouch touch screen, recognized by the kernel as a Amtel maXTouch Digitzer (probably elotouch just rebrand Amtel touchscreen). The driver used is the evdev driver.

The porting of the application was really quick: less than 20 lines of codes changed and the application was up and running on the raspberry. I tested the application with mouse and keyboard and it works as expected. Problems come in with the touch screen.

For some reason, my application does not recognize correctly the "tap". I had this problem both with buttons (more details here) and with Switch control (more details here). I guess that the problem is how upp treats the event (below there are more information on this, that I collected using evtest utility; basically, mouse uses BTN_LEFT event for the click, while the touch screen uses BTN_TOUCH for the tap). This is what works and what does not work in my application:
-Tap/click: it works only with WhenPush or WhenAction callbacks, not with the built-in event (e.g. standard Ok and Cancel buttons do not work, but if I explicitly set the WhenPush callback they work as described here)
-Double click/tap: it works (e.g. double clicking/taping on a row of a SqlArray control gets in edit mode)
-Right click emulation: it does not work (keeping pressed should triggers the right click emulation, but if I keep pressing on a SqlArray row it does not show the "Modify record..." pop up, as it happens if I right click with the mouse)
-multi-touch: not tested

On the OS all the above events (click/tap, double click/tap, right click emulation, multi touch) are treated correctly, so I guess that the problem is on U+++ side.

As I said, I guess is a problem related to the events: I tried to have a look to CtrLib/Switch.cpp and CtrLib/Switch.cpp, but I am not skilled enough to understand if they can be somehow fixed.

I think I cannot solve by myself those problems, so any help will be appreciated.
Thanks,
Gio

More information on the mouse and touch click event:

pi@raspberrypi:~ $ sudo evtest /dev/input/event2
Input driver version is 1.0.1
Input device ID: bus 0x3 vendor 0x192f product 0x416 version 0x111
Input device name: "USB Optical Mouse"
Supported events:
  Event type 0 (EV_SYN)
  Event type 1 (EV_KEY)

Event code 272 (BTN_LEFT)
        Event code 273 (BTN_RIGHT)
        Event code 274 (BTN_MIDDLE)
      Event type 2 (EV_REL)
        Event code 0 (REL_X)
        Event code 1 (REL_Y)
        Event code 6 (REL_HWHEEL)
        Event code 8 (REL_WHEEL)
      Event type 4 (EV_MSC)
        Event code 4 (MSC_SCAN)
Properties:
Testing ... (interrupt to exit)

Event: time 1502281968.518936, -------------- EV_SYN ------------
Event: time 1502281968.646926, type 4 (EV_MSC), code 4 (MSC_SCAN), value 90001
Event: time 1502281968.646926, type 1 (EV_KEY), code 272 (BTN_LEFT), value 0
Event: time 1502281968.646926, -------------- EV_SYN ------------

pi@raspberrypi:~ $ sudo evtest /dev/input/event3
Input driver version is 1.0.1
Input device ID: bus 0x3 vendor 0x3eb product 0x8a6e version 0x111
Input device name: "Atmel Atmel maXTouch Digitizer"
Supported events:
  Event type 0 (EV_SYN)
  Event type 1 (EV_KEY)
    Event code 330 (BTN_TOUCH)
  Event type 3 (EV_ABS)
    Event code 0 (ABS_X)
      Value   1078
      Min   0
      Max   4095
      Resolution   12
    Event code 1 (ABS_Y)
      Value   3218
      Min   0
      Max   4095
      Resolution   15
    Event code 47 (ABS_MT_SLOT)
      Value   0
      Min   0

```
    Max        9
  Event code 53 (ABS_MT_POSITION_X)
    Value      0
    Min        0
    Max     4095
    Resolution      12
  Event code 54 (ABS_MT_POSITION_Y)
    Value      0
    Min        0
    Max     4095
    Resolution       15
  Event code 57 (ABS_MT_TRACKING_ID)
    Value      0
    Min        0
    Max    65535
Properties:
  Property type 1 (INPUT_PROP_DIRECT)
Testing ... (interrupt to exit)
```

```
Event: time 1502282136.626462, -------------- EV_SYN ------------
Event: time 1502282136.703407, type 3 (EV_ABS), code 57 (ABS_MT_TRACKING_ID), value -1
Event: time 1502282136.703407, type 1 (EV_KEY), code 330 (BTN_TOUCH), value 0
Event: time 1502282136.703407, -------------- EV_SYN ------------
```