Documentation linux reinstallation

Initial reason

during the inventory and the handling of the touch tables:

- version and internet connection problem (a missing wifi module for one of the tables, ubuntu to update)
- an unknown user password, so impossible to update the tables or to install our local server
- touch screens are not managed by ubuntu installed on them, so you can just make simple clicks and you can't do :
    - of clicks right
    - of drags
    - of multi-touch
- one of the two tables used needs a battery change cm, cmos flat battery https://www.amazon.com/Eunicell-CR2032-Lithium-Blister-Batteries/dp/B00PNW4HSG

Relocation process

since there are touch versions of linux (ubuntu touch) designed for tablets, or even packages that allow you to switch to multi-touch mode, we will try to solve this problem, and we take the opportunity to put the latest version of ubuntu in a long-term concern.

There are two test cases, one with an installation of ubuntu touch, a version of ubuntu created for tablets and smartphones, like ubuntu on pc, it is free and open source.
:::danger
In the end, after several tests, ubuntu touch does not work, the hardware installation is recognized as a touch screen and a computer, not a set of both, so the installation of ubuntu touch failed.
:::

The second option is to install ubuntu pc "basic" and set it up to handle touch usage with existing packages (gg key, unclutter, etc...)

Existing inventory

We start by making an inventory of the files added to the touch table, to see if there are useful resources for the touch table project

(in the end there are only the files of the game of the year before, and some games installed via the app store nothing else)

Table 1 (ubuntu 22.04) i5 4250u / 4Go ram :

- Disassembling the box, to fix the battery problem + ubuntu touch installation
- No wifi

2nd Digital Table (ubuntu 22.04) : i5 4250u / 4Go of ram

- wifi
- batter
  y ok

3rd Tactile coffee table (Fablab) : i5 4250 / 6Gb of ram

- wifi
- batter
  y ok

Documentation of the linux installation

Prerequisite:

- A computer on which you want to install Ubuntu 22.04 A USB key
- of at least 4 GB
- The Ubuntu 22.04 installation ISO file, which you can download from the Ubuntu website: https://ubuntu.com/download

Step 1: Create a bootable USB key

- Insert the USB key into the computer.
- Download and install the bootable USB flash drive creation program, such as Etcher or Rufus.
- Launch the USB boot drive creation program and select the Ubuntu 22.04 installation ISO file that you downloaded.
- Select the USB stick as the destination device and start creating the bootable USB stick.

Step 2: Configure the computer's BIOS

- Restart the computer and press the appropriate key to access the BIOS during startup (usually the Delete, F2 or F10 key).
- In the BIOS, look for the "Boot Order" or "Boot Priority" option.
- Change the boot order so that the USB flash drive is at the top of the list. Save the
- changes and exit the BIOS.

Step 3: Installing Ubuntu 22.04

- Restart the computer and wait for the Ubuntu installer to load from the USB stick.
- Select your language and click on the "Install Ubuntu" button.
- Select the desired installation options (such as hard drive partitioning) and follow the on-screen instructions to complete the installation.
- Once the installation is complete, remove the USB key and restart the computer.

That's it, you have now installed Ubuntu 22.04 on your computer using a bootable USB key.

Documentation of tacticality.

Prerequisite:

- Three NUC machines
- Egalax touchscreen
- Ubuntu 22.04 open in Xorg mode Internet
- connection

Step 0: Installation of lightdm

lightdm is a necessary installation for a good functioning of eGalax drivers (required by the driver installer)

Step 1: Installing the Linux drivers for the Egalax touch screen

1. Connect the Egalax touch screen to the NUC machine.
   Open a terminal and type the following command to install the Egalax touchscreen Linux drivers:

```
sudo apt-get install xserver-xorg-input-evtouch
```

2. Restart the machine to apply the changes.

Step 2: Installation of the Egalax driver

1. Download the Egalax driver from the manufacturer's website:

- https://www.eeti.com/drivers_Linux.html

2. Extract the downloaded file and open a terminal in the extracted folder.
3. Type the following command to install the driver:

```
tar -xzf eGTouch_v2.5.9321.L-x.tar.gz
cd eGTouch_v2.5.9321.L-x
sh setup.sh
```

ps: we took a version above here.

4. Restart the machine to apply the changes.

Step 3: Installing TouchGG

Open a terminal and type the following command to add the TouchGG APP:

```
sudo add-apt-repository ppa:touchgfx-team/touchgg
```

Then type the following command to update the list of packages:

```
sudo apt-get update
```

Finally, type the following command to install TouchGG:

```
sudo apt-get install touchgg
```

Step 4: Installing Touché

Open a terminal and type the following command to download the Touché installation file:

```
wget
https://github.com/JoseExposito/touche/releases/download/v2.0.2/touche_2.0.2_am
d64.deb
```

Then type the following command to install Touché:

```
sudo dpkg -i touche_2.0.2_amd64.deb
```

Step 6: TouchGG and Touch configuration

- Start TouchGG by typing the following command in a terminal:

```
touchgg
```

Click on the gear icon at the top right of the window to access the settings. In the "Input Device" section, select the Egalax screen reference displayed for the Egalax touchscreen.
In the "Actions" section, add the multitouch gestures you want to use. (here, we set on Firefox)

- Save the changes and close the window.
  Launch Touch by typing the following command in a terminal: In the "Gesture Engine" section, select "TouchGG".
  Save the changes and close the window (you can also use the desktop icon)

Step 5: Multitouch test

Launch an application that supports multitouch, such as a web browser. Perform the multitouch gestures you have configured in TouchGG to verify that multitouch is working properly.
That's it, you should now have successfully enabled multitouch on your Egalax touchscreen under Ubuntu 22.04 using TouchGG and Touché
(in our case, works since some commands work, but the type of basic installation made by the company before us, does not seem to identify the **first click** as a mouse click, as a computer touchpad)

Step 6 : firefox fix for multitouch

Change a parameter in the configuration file to have the "touch" config (to be set manually even if you have a touch screen)

open about:config in firefox to set dom.w3c_touch_events.enabled=1 (default is 2).

edit /etc/security/pam_env.conf and add MOZ_USE_XINPUT2 DEFAULT=1

reboot and restart firefox