RPI3 and RPI4 LoopSign Deployment Guide

There is a very easy and reliable way to deploy LoopSign to a Raspberry PI3 and 4.
Note that RPI4 is recommended

The OS is set to update itself with the latest available updates every Sunday. So, there is no need for any maintenance of the player.

Content

1. What do you need

- Raspberry Pi3 or 4
- MicroSD card (recommended SD card size is 32GB and above, as fast as possible)
  Please note that the Pi4 does not work with all kinds of SD card. If your Pi runs slow or gets unstable it is probably because of combability with the SD card. Then try another card brand.
- Hardware to «write» SD-Card
- Raspberry PI imager software
  https://downloads.raspberrypi.org/imager/imager_latest.exe
- Or if you prefer to use Rufus, that works perfectly as well. https://rufus.ie/en/

2. LoopSign Image Deployment

- Download the latest LoopSign Image from this link:
  https://sos.loopsign.eu/LS_Image/loopsign_2023.8.img.gz

- Connect an SD card reader and insert the SD card you want to use.
  - Start Raspberry Pi Imager
  - In Operating System, Choose "Use Custom"
  and select the file you downloaded "loopsign.img1.2.gz"
  - Choose storage (the SD-Card)
  - Click "Write"

- When "burning" has finished, insert the SD card in the RPI
- **Connect Network and HDMI-1 (Port nearest the USB-C connector)**
- Connect power and wait for a few minutes for initial setup.
- If you do not get a picture after a few minutes, please disconnect/connect power to restart the unit.
- Note that if network is not connected it will take some extra time during startup

After starting up it will wait for confirmed network connection and then launch LoopSign demo page. (If network is connected)

3. Configuration

Press Alt+F4 to exit the kiosk browser.

3.1 Configure localization (Optional)

The PI is set up with Norwegian keyboard layout and TimeZone Oslo (Central Europe)
If you like to change this do as follows:
- Start - "Raspberry Pi Configuration" from desktop 🍓
- Select "Localization" and set whatever settings you prefer.

3.2 Configure WIFI (Optional)

If you need to connect to a WIFI network,
Click the "Double red cross/ Arrows" Icon in the right top corner. And configure WIFI as needed

3.3 Configure screen orientation or resolution (Optional)

By default display runs in normal "landscape" mode 1080P 60Hz
If needed this can be changed by using the desktop Application "Screen Configuration".
Double click on the "Screen configuration" Icon, select "Execute" then right click on HDMI1 and select orientation. Set the orientation to what you prefer.

4. LoopSign URL configuration

To change the URL that is being played on the device just double click edit the LoopSign-URL.txt file on the desktop. Enter the URL you like to play.
(Refer to your LoopSign screen overview to get the URL's for your screens)
"Save" the file and restart your player

5. Optional configurations

Feel free to tweak the OS as you like.
The password for the loopsign user account is: loop24.

5.1 Configure other reboot time (Optional)

The player is configured to reboot every Sunday at 06:00. If you like to make the player reboot every day by editing the Crontab settings.

Start a terminal window by clicking on the LX Terminal icon up in the left corner.

Write command: **sudo crontab -e**
Add the line below in the bottom of the file. This wil add a reboot every day at For example, to 07:00
00 7 * * * /sbin/shutdown -r now

To save, press 'Ctrl+O' (WriteOut), then press 'Enter' when asked to confirm the filename.
To exit, press 'Ctrl+X' (Exit).

Now enter the command to restart your player.
sudo reboot

5.2 Configure custom NTP server (Optional)

By default time sync is done by connection to a common NTP server on the internet. In most cases this is ok, however in the case where the network does not have NTP TCP port 123 open you need to specify an internal NTP server for time synchronization.

On the desktop, start a terminal window by clicking he LX Terminal icon up in the left corner.

Type the following the terminal window then press enter:

sudo nano /usr/local/bin/loopsign.sh

Change the line where the NTP server is specified

Force sync the time using the ntpdate command
  ntpdate pool.ntp.org

After you also need to change system NTP server

sudo nano /etc/systemd/timesyncd.conf

Edit the file according to your needs.
To save file press "ctrl+o" then press "ctrl+x" to exit

```
[Time]

NTP=your.servername.goes.here

FallbackNTP=0.arch.pool.ntp.org 1.arch.pool.ntp.org 2.arch.pool.ntp.org 3.arch.pool.ntp.org

#RootDistanceMaxSec=5
#PollIntervalMinSec=32
#PollIntervalMaxSec=2048
```

6. Other options and add on

There are some configurations and tools that might be beneficial to install.

The password for the loopsign user account is: loop24.

6.1 Install Teamviewer

Open terminal window and run commends:

wget bit.ly/loopsignteamviewer && sudo dpkg -i loopsignteamviewer

Sudo apt --fix-broken install -y

6.2 Span over two screens

```
chromium-browser --kiosk <url> &

    sleep 5
    wmctrl -r Chromium -b remove,fullscreen
    wmctrl -r Chromium -b remove,maximized_vert,maximized_horz
    wmctrl -r Chromium -e 0,0,0,1920,2160
```

Add to bottom of bash script

```
# Wait for 10 seconds
sleep 10
# Activate the Chromium window
xdotool search --onlyvisible --class Chromium windowactivate --sync
# Wait for a brief moment
sleep 1
# Execute the wmctrl commands
wmctrl -r Chromium -b remove,fullscreen
wmctrl -r Chromium -b remove,maximized_vert,maximized_horz
wmctrl -r Chromium -e 0,0,0,1920,2160
```