This guide will instruct you on how to set up a Linux installation to run the Planet eStream digital signage client. The instructions below assume you have a fresh installation of Linux – the signage client uses the Electron framework, and was built on and tested using the latest release of Ubuntu (16.10 at the time of production). Electron is also known to work on Fedora 21 onwards and Debian 8 onwards. If you are using an existing Linux installation, you may find that you already have some necessary pre-requisites installed. For more information on installing Linux onto a signage player, visit the Ubuntu website at https://www.ubuntu.com/.

This guide assumes you are familiar with basic Linux functionality, such as navigating around directories using the console. Regardless, any command lines below will be presented in full using the courier new font and should be entered exactly as they appear below.

The power of your signage player hardware will determine how many elements can be added to screen designs and achieve optimal performance reliably.

Open a console window and enter the following command lines one after the other. These will install essential components and make any necessary configurations.

```
curl -sL https://deb.nodesource.com/setup_8.x | sudo -E bash -
sudo apt install git npm unclutter chromium-browser nodejs nodejs-legacy
sudo apt-get remove gnome-screensaver
git clone https://github.com/electron/electron-quick-start
cd electron-quick-start
npm install
```

Please note: the `npm install` command has, on occasion, failed to complete due to a network error. We found that waiting for the command to time out and trying again has worked, or resetting the player.

Navigate to the electron-quick-start directory (which should be located in the Home directory) and rename it to 'eSign', or whatever you would prefer.

```
#!/bin/bash
cd eSign
sudo npm start
```

Now, in the home directory, right click and create a new file called run.sh. Edit this file and enter the following:

```
unclutter -idle 5.0 -root
#!/bin/bash
cd eSign
sudo npm start
```

Save the file.
Next, enter the following:

```bash
mkdir .config/autostart
nano .config/autostart/run.sh.desktop
```

In the nano editor, enter the following, changing the exec line to point at the location of your run.sh script:

```bash
[Desktop Entry]
Type=Application
Exec=/home/pi/run.sh
Hidden=false
NoDisplay=false
X-GNOME-Autostart-enabled=true
Name[en_GB]=eSign
Name=eSign
Comment[en_GB]=
Comment=
```

Next, enter sudo visudo and find the line `%sudo ALL=(ALL) ALL` and change this to `%sudo ALL=(ALL) NOPASSWD: ALL

Copy the Planet eStream signage client folder, available from; https://www.planetestream.co.uk/files/LinuxSignageClientEstream.zip onto your Linux installation and extract the contents of the folder to the eSign folder, overwriting any files that Linux prompts you to do.
Press the Windows key and enter 'startup', then click 'Startup Applications'. Click add, name the new application 'eSign' and navigate to the location of your run.sh file. Now, click save.

For final configuration, ensure the volume is turned all the way up on the player. Open the system settings, found by clicking a gear icon in the upper-right corner, and then go to ‘Brightness and Lock’. Turn off 'Require my password when waking from suspend', and also turn 'Lock' off, then set the sleep timer to 2 minutes. The application will normally keep the display awake until you send a sleep command.

Reboot the system. If, when rebooted, the signage client automatically loads and you are presented with a Planet eStream logo, you have successfully set the player up correctly. Now, enter your Planet eStream URL into the box, which will return a Site ID if the URL is correct. Click the ‘Restart’ button to load the signage display. You will need to go into Planet eStream and authorise the new player, which will be listed as the latest number in your chain of players. Assign default signage content to the screen, and after a few moments, the player should display this content.

You can now unplug the player machine from your workstation and set it up against a wall-mounted digital signage display.