Installation

Download the image for your system link

Info for PC X86_64:

UEFI for systems with UEFI bios, almost all current PCs

BIOS for older bios systems

Embedded system without graphic interface

XFCE4 system with graphical interface (xfce4 in fact)

Advanced systems only for those who have registered these systems:

ALDERLAKE, x86-64-v2, x86-64-v3, SKYLAKE, ZNVER3, are full LTO compiled systems with specific CPU flags activated for specific cpus supporting them

How to install GentooPlayer

windows, Linux, OSX

Use **etcher** to copy the *img.xz file to the media (sd-card, usb stick , SSD, NVMe etc)

Linux

```
xzcat /pathtofileimage/file.img.xz > /dev/sdX && sync
```

sdX is the disk where to install, es **sda**, **sdb**, **sdc** etc.

Caution: Copying/installing the image will destroy the contents of the disk.
Installing GentooPlayer will use the entire disk.
At first boot the system will resize the partition automatically.

First Start-up/Quick Start Guide

Start
GentooPlayer works in all cases with a LAN cable connected to the network.

The use of a monitor is not required, indeed it is better not to connect any monitor to the system.

Then reach the GentooPlayer web interface by entering the device´s IP followed by ":**5000**".
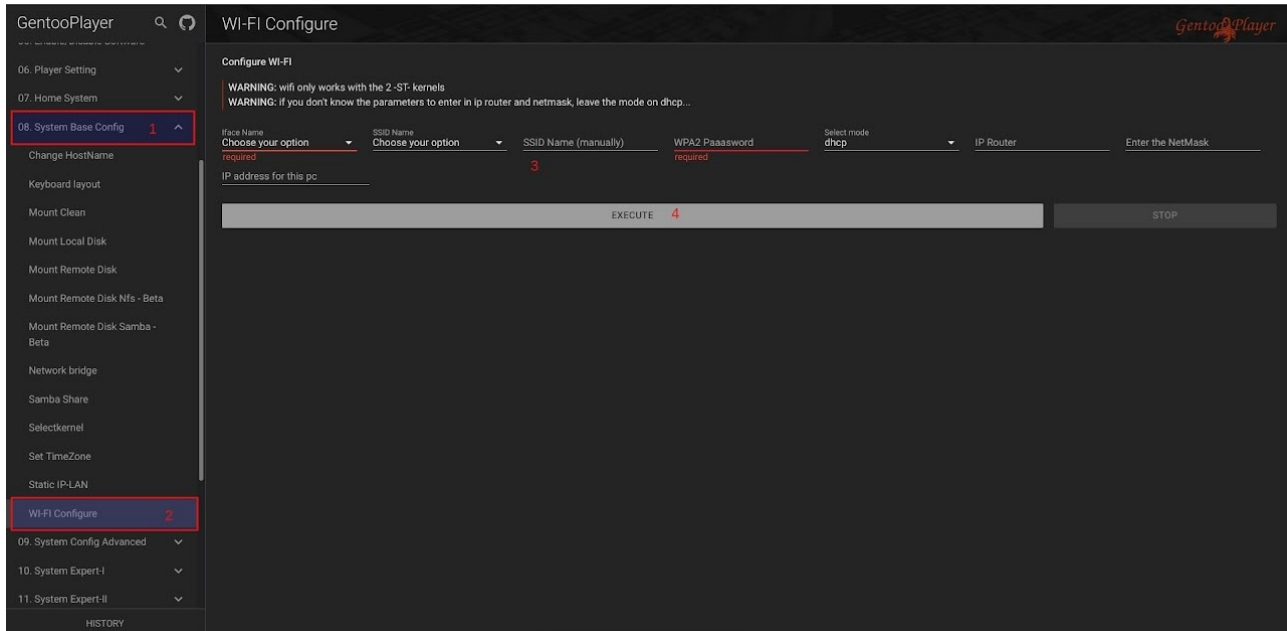
Ex. 192.168.178.2:5000

You can locate the IP using apps such as **IP-scanner**, **fing** and others.

If the device is not connected to a LAN but to a WI-FI system, GentooPlayer, not knowing your SSID and password, will create a Wi-Fi hotspot that you can connect to with another Wi-Fi device and configure Wi-Fi on GentooPlayer by going to:

Via hotspot the web interface will be accessible at:
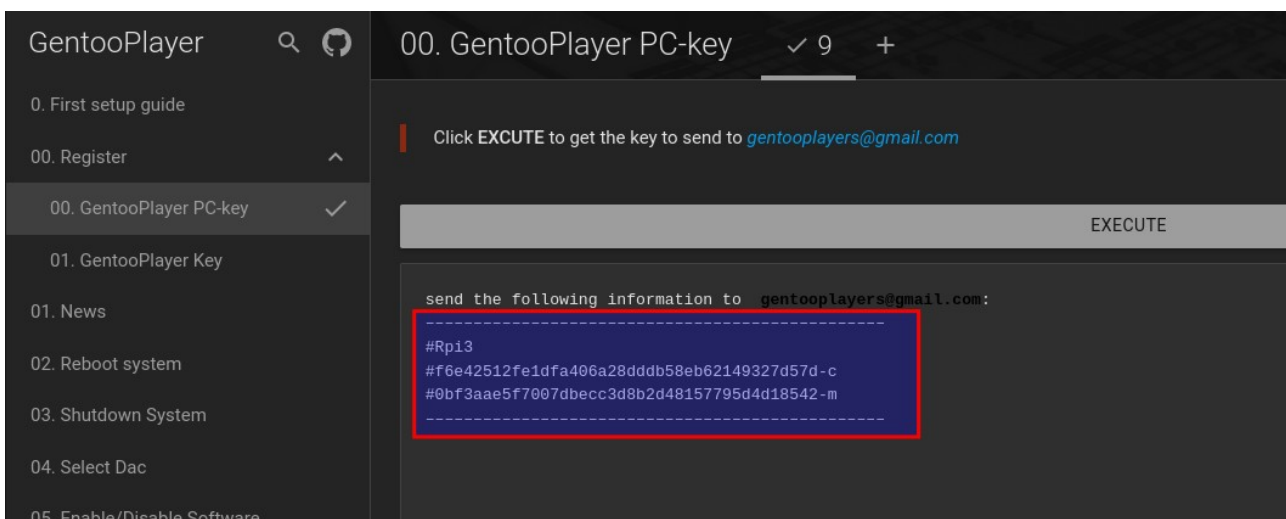
192.168.42.1:5000

Registration (also applies to the request for a trial key)
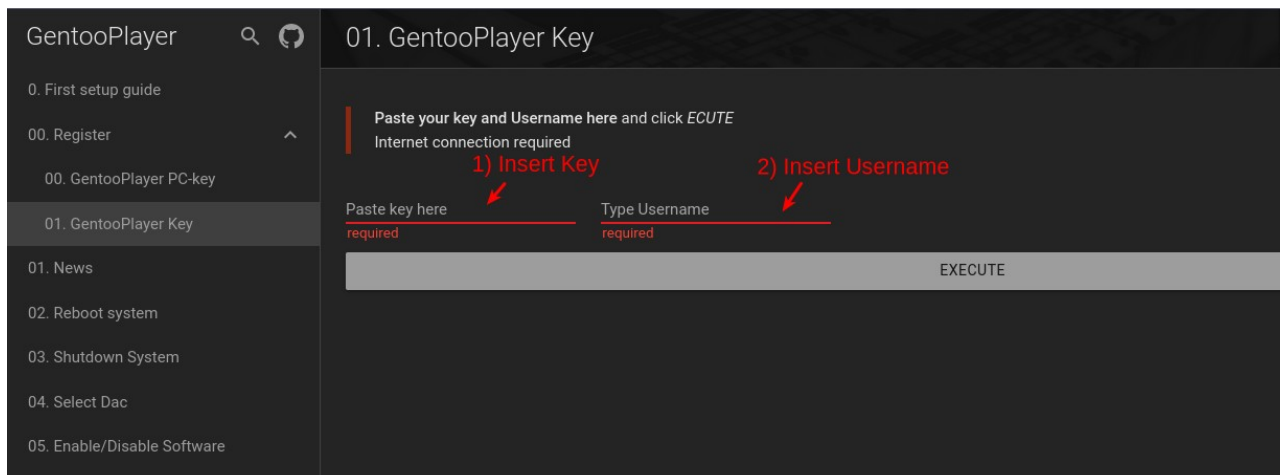
Send the highlighted information to gentooplayers@gmail.com

you will receive by email a code and a username to enter in

insert key, username and click EXECUTE

Recommended things to do on first start-up

- Run GP-Update

  Update/Install/remove > GP-Update

  this operation updates the scripts, an operation that at least on first start-up is mandatory to perform, then it goes from date to date, however the News function warns you if you perform it.

- For security reasons, change the root password

  Home System > Excute Command1 > root_pw

- Disabling the hotspot

  System Config Adanvaced > TWK Various > HotSpot

- On Rpi, Disable SD-Card Polling

  System Config Adanvaced > TWK Various > SD-Card Polling

- Remove software you don't need

  This could bring several advantages, less memory occupied if you use the Ramsystem, faster loading of the Ramsystem, faster updates when available. On rpi3 it is strictly necessary to do this if you want to use the Ramsystem.

  Update/Install/Remove > Software Manager

  Audio:

  remove all audio software you will not use

  System (use with caution):

  hostapd, iw, wpa_supplicant, dnsmasq (if you do not use wi-fi)

    pbzip2

    zip

    screen

    wgetpaste

    bcmstat

    nmap

    nfs-utils (if you do not need to mount network shares)

    net-fs/samba (if you do not need to mount network shares)

    ethtool

    usbutils

    parted (if you do not have to use the 'Install GP-Beta' function)

    exfatprogs (if you do not need to mount ex-fat discs)

    growpart (if you do not have to use the 'Install GP-Beta' function)

    ntfs3g (if you do not need to mount ntfs discs)

    uhubctl

    glances

    htop

Note: if you use your PC as a **Diretta target**, you can uninstall all software in audio (with caution) and system without any problems

Image x86_64 xfce4 GUI will not start (GUI Disable)

Check under `Enable/Disable Software` that `serverX` is set to `Enable`, this function allows you to enable or disable serverX, if set to `Disable` the xfce4 GUI will not start, this allows you to use the x86_64-xfce4 system almost the same as an Embedded system

Select Dac (only on rpi and if you use dac Hat or IIS connection)

Select the dac hat you need.

If you have a direct IIS GPIO > DAC connection you might choose `70 RPi-DAC`, this driver supports **PCM1536** and **DSD-Dop512** .
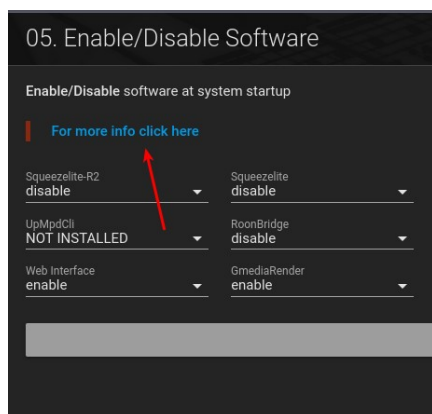
Usb Dacs do not need any selection they are automatically detected.

There is a `USB DAC` option in the list, this option does nothing more than delete any HAT dacs set in the config.txt.

Enable the software to run on your system

Go to **Enable/Disable Software** and enable the software you need

Further information about the software, such as passwords, addresses to configuration pages, etc., can be found by clicking on the link

Configure the software/player to be used

Go to **Player/Audio Setting** and configure the software you have enabled.

Tip: If you are using roonserver or roonbridge you can disable the debug function, this can reduce cpu usage.

Remember that this must be repeated each time you update roonserver or roonbridge, remember that these software also update automatically from the roon app.

Go to **Player/Audio Setting > Disable Roon Debug**

Some useful information on SytemInfo

Go to **Home System > SystemInfo** and click EXCUTE, you can get useful information for configuring certain players.

With the **system not in play** for example you can get information like this:

```
_____

*** Scanning for playback devices ***
Card 0, ID `Audio', name `MUSICIAN USB HiRes Audio'
  Device 0, ID `USB Audio', name `USB Audio', 1 subdevices (1 available)
     2 channels, sampling rate 44100..1536000 Hz
     Sample formats: S32_LE, SPECIAL, DSD_U32_BE
     Buffer size range from 16 to 3072000
     Period size range from 8 to 1536000

        Subdevice 0, name `subdevice #0'
_____



AUDIO CARDS INFO:
CARD            TYPE                    ADDRESS                      NAME
----------------------------------------------------------------------------------
    card0       USB Audio card          usb1 --> 152a:8829      MUSICIAN MUSICIAN USB
card0   STATUS  --> closed
----------------------------------------------------------------------------------
----------------------------------------------------------------------------------
```

sampling rate supported

Sample formats supported
In this case it indicates S32_LE, so it would be useful to set the player,
if it supports it, with the same format.

DSD_U32_BE indicates that the dac supports native dsd in the u32be format,
so again it would be useful to set the player for this format, if it supports it.

STATUS Closed
simply indicates that the sound card is not in use.

With the **system in play** it simply indicates:

```
AUDIO CARDS INFO:
CARD            TYPE                    ADDRESS                      NAME
----------------------------------------------------------------------------------
    card0       USB Audio card          usb1 --> 152a:8829      MUSICIAN MUSICIAN USB
card0   STATUS  --> access: RW_INTERLEAVED format: S32_LE subformat: STD channels: 2 rate: 48000 (48000/1) period_size: 480 buffer_size: 9600
----------------------------------------------------------------------------------
                USER        PID ACCESS COMMAND
/dev/snd/pcmC0D0p:   root        6562 F.... gst-play-1.0
----------------------------------------------------------------------------------
```

what format it is playing in

what the audio output is using

WARNING: if the SystemInfo eventually gives you this indication, at the end of the page:

Tip:

your cpu supports avx2 it is recommended to use the function software recompile…
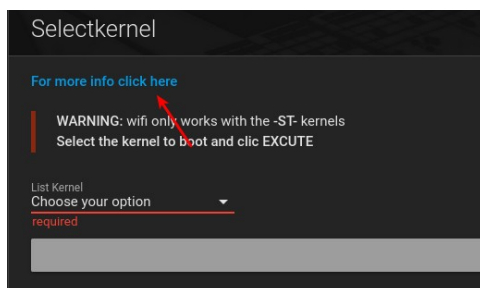
is something you will have to do, this for example installs the right version for your cpu of **HQPlayer Embedded**

Update/Install/Remove > Software Manager > Recompile

Select Kernel

Go to **System Base Config > Selectkernel** and test the various kernels and choose the ones that give you the most satisfaction.

Some more information can be found by clicking on the link "**For more info click here**".

You can update or change the kernel version by going to

Update/Install/Remove > UP/DW kernel*

Kernels for specific cpus (x86_64) and compiled LTO Full kernels are also available here.

You can also find some more info here by clicking on the link '**For more info click here**'.

Note: Selectkernel **can also be used with the ramsystem enabled**.

Diretta protocol

Diretta is a network protocol.

For more information visit https://www.diretta.link/

For this to work you need two PCs.

PC1 - **PC Host** is the PC where you need to enable **DirettaHost** and where you need to have a player with audio output set to **DirettaAlsa**.

Player/Audio Setting > Diretta Host

PC2 - **PC Target** is the PC where you only need to enable **Diretta Target**, and it is the PC to which the **DAC** is connected.

Player/Audio Setting > Diretta Target

Ramsystem

To enable ramsystem go to Ramsystem > Set Ramsystem Mode and choose a mode

To enable or disable the ramsystem at system boot go to
Ramsystem > Enable/Disable Ramsystem

Note: use the ramsystem when the system is fully configured

Tips

When the configuration is finished, you can also temporarily deactivate the webinterface

Home System > Excute Command > stop_WI_on_restart_it_will_be_up_again

This still eliminates some services. Keep in mind that the web interface processes do not use significant resources, but if you are a perfectionist.…

WI will be available again on reboot.

You can shut down the pc by simply turning off the power, I personally do this, I have never had any corruption problems, neither on x86 pc's nor on rpi's.

If you wish, you can program the shutdown:

Shutdown System > SCHEDULE

On pc_x86 you can also switch off with the PC's power button, make sure you have ACPI enabled.

System Config advanced > TWK various > Enable/Disable ACPI

Bear in mind that this enables you to do one more process.