

Linux

Linux

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Systemd

Systemd

--	--	--	--	--	--

--	--	--	--

```
[Unit]
Description=<Description>

[Service]
Type=oneshot
User=<user>
Group=<groups>
ExecStart=<command>

[Install]
WantedBy=multi-user.target
```

--	--

[Unit] ☐

- Description : systemctl status

[Service] ☐ ☐

- [illegible]

- ExecStart :

shell script

[Install]

- WantedBy : Target systemctl enable

Systemd-boot

UEFI



- ESP 512MB 1GB
 - Systemd-boot Kernel ESP
- UEFI BIOS CSM BIOS
- Linux Systemd init daemon



chroot ESP ESP Linux
/boot /efi



```
sudo bootctl install # sudo root sudo
```

Systemd ESP UEFI

[ArchWiki](#)

ESP /boot

Windows 100MB ESP

/boot "Linux extended boot"

“ In other cases, it is recommended to set the partition type to **Extended Boot Loader (XBOOTLDR)** Partition which is GPT partition type GUID **BC13C2FF-59E6-4262-A352-B275FD6F7172** (ea00 type for gdisk) or MBR partition type ID **ea**.

□□□□□□ /boot □ /efi □□□□□□□□□□

```
sudo bootctl --esp-path=/efi --boot-path=/boot install
```

□□ Cmdline□ Kernel Parameter□

/etc/kernel/cmdline

```
sudo kernel-install add-all
```

--	--	--	--	--	--

Kernel

--	--	--	--	--

Systemd-boot

--	--	--	--	--	--	--	--

Cmdline ☐ ☐ ☐





PNG

WebP



--	--

- Is array

- ambiguous

- `${array[@]}` array

-  for-loop  cwebp 

-  WebP 



- `libwebp` `Linux` `library`
- `Array` `bash` `sh` `zsh` `shell`

Arch Linux

Arch User Repository

Arch User Repository (AUR)

yay

makepkg debug

```
#####  
#####  
# GLOBAL PACKAGE OPTIONS  
# These are default values for the options=() settings  
#####  
#####  
#  
# Makepkg defaults: OPTIONS=(!strip docs libtool staticlibs emptydirs !zipman !purge !debug !lto)  
# A negated option will do the opposite of the comments below.  
#  
#-- strip: Strip symbols from binaries/libraries  
#-- docs: Save doc directories specified by DOC_DIRS  
#-- libtool: Leave libtool (.la) files in packages  
#-- staticlibs: Leave static library (.a) files in packages  
#-- emptydirs: Leave empty directories in packages  
#-- zipman: Compress manual (man and info) pages in MAN_DIRS with gzip  
#-- purge: Remove files specified by PURGE_TARGETS  
#-- debug: Add debugging flags as specified in DEBUG_* variables  
#-- lto: Add compile flags for building with link time optimization  
#  
OPTIONS=(strip docs !libtool !staticlibs emptydirs zipman purge !debug lto)
```

debug yay


```
sudo pacman -S --needed base-devel git
git clone https://aur.archlinux.org/yay.git
cd yay
makepkg -si
```

makepkg.conf



☐ MAKEFLAGS ☐ nproc ☐

```
MAKEFLAGS="-j$(nproc)"
```

☐ / ☐

```
yay -S pigz pbzip2 lbzip2 plzip
```

☐

```
COMPRESSGZ=(pigz -c -f -n)
COMPRESSBZ2=(pbzip2 -c -f)
COMPRESSXZ=(xz -c -z -)
COMPRESSZST=(zstd -c -T0 --ultra -20 -)
COMPRESSLRZ=(lrzip -q)
COMPRESSLZO=(lzop -q)
COMPRESSZ=(compress -c -f)
COMPRESSLZ4=(lz4 -q)
COMPRESSLZ=(plzip -c -f)
```


Bash

Unix Shell

alias

```
alias alias_name="command_to_run"
```

alias_name

GPG

1.1

1.1.1

Key

- 1.1.1.1 Key: `gpg --list-keys --keyid-format SHORT`
 - 1.1.1.1.1 SHORT 1.1.1.1.1.1
- 1.1.1.2 : `gpg --edit-key <keyid>`
- 1.1.1.3 `gpg>` 1.1.1.3.1 `trust` 1.1.1.3.1.1
- 1.1.1.4 ultimate 1.1.1.4.1 `quit` 1.1.1.4.1.1
- 1.1.1.5 key 1.1.1.5.1

5 (ultimate)

Proton

☐ Steam (Valve) ☐☐☐☐ Wine fork☐

Proton vs. Proton-GE-Custom

- Proton [] Steam [] (Valve) [][][][]
- Proton-GE-Custom [][][][][][][] Valve [][][][][][][] Patch 1

Proton

--	--	--	--	--	--

☐ Steam -> ☐ -> ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☒ **Steam Play** ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐ **Proton 9.0-1** (☐ ☐ ☐ ☐ Experimental ☐ GE ☐ ☐)

Proton-GE-Custom

In Arch Linux (yay AUR Helper):

yay -S proton-ge-custom-bin

```

[ ] [ ] [ ] asdf [ ] 2:

```

```
asdf plugin add protonge
```

```
# Or install a version from a tag (Eg.: GE-Proton8-25)
```

```
asdf install protonge latest
```

asdf

--	--	--	--	--	--	--

□ □ □ □ □ □ □ □

```
~/steam/root/compatibilitytools.d
```

d ☐ Steam ☐

30

symlink ☐ Plugin ☐☐☐☐

Wine

Linux Windows

[TOC]

In Arch Linux:

```
sudo pacman -S wine
```

Proton

Proton

Prefix

Wine ~/.wine Prefix 1 2

WINEPREFIX Prefix:

```
WINEPREFIX=~/.wine-other wine winecfg
```

WINEARCH Wine win32 32 Wine win64 64

```
WINEARCH=win32 WINEPREFIX=~/.wine-32 wine winecfg
```


sudo


UID=0 root

--	--	--	--

- **-E** : sudo
 - **--preserve-env**
- **-e** :
 - **--edit** **sudoedit**
- **-u** : **www-data**
 - **su <username>** **su** **shell**

Distrobox

Distro 

 Distro 

Debian 12

```
sudo apt install distrobox
```



```
.bashrc
```

```
mkdir -p ~/distrobox-home/arch
```

```
distrobox create -n arch -i docker.io/library/archlinux:latest --home $HOME/distrobox-home/arch
```

```
distrobox enter arch
```

 `distrobox create`

- `-n` : `□□□□`
- `-i` : `□□□□`
 - `□□ Debian □ Podman □□□□□□□□` `Docker Registry □□□□□□□□□□` `(`
`docker.io/library)`
- `--home` : `□□□□□□□□□□`

distrobox enter <name>

libimobiledevice

📱 iTunes📱 Linux 📱📱📱 Apple 📱📱📱



Ubuntu 📱📱📱📱📱

```
sudo apt-get install usbmuxd libimobiledevice6 libimobiledevice-utils
```

📱📱📱📱📱📱📱 Debian 📱📱📱📱 12📱📱📱📱📱📱📱📱
Experimental📱

AUR 📱📱📱📱📱📱📱📱📱📱📱📱📱📱📱

```
yay -S idicerestore-git usbmuxd-git
```

📱📱📱📱

Apple 📱📱📱📱📱📱📱📱

GitHub 📱📱📱📱📱📱

📱📱📱📱📱📱📱📱 VM 📱 Arch Linux 📱 Gentoo 📱 openSUSE Tumbleweed

📱📱📱📱📱 libimobiledevice 📱📱📱📱📱 Ubuntu📱 Debian

📱📱📱📱📱📱📱📱



📱📱📱

📱📱📱📱 idevicebackup 📱📱📱

iOS 3📱📱📱📱📱📱📱



```
idevicebackup2 backup --full ./idevice-backup
```

📱📱📱📱📱📱📱📱 ./idevice-backup 📱📱📱📱📱 --full



Find My iPhone

Find My iPad

```
idevicebackup2 -s "device-uid" restore --system --settings ./device-backup
```

./device-backup

-s

-i

Apple ID

App



IPSW

```
idicrrestore -e <IPSW_file_location>
```

-e

idicrrestore

-l

DFU

-R

(--recovery-mode

IPSW

USB

root

idicrrestore



DFU



irecovery

irecovery -n



Podman / Docker

□□□□

□□□□□□

□□□□□□□□

Host □□□

Command:

```
docker run --network=host -it ...
```

docker-compose.yml (v3 □□): □□ network_mode: "host" □□

□□□□ Port □□□□□□ host □□□□□□ Port □□□□□□□□□□□□ iptables □
firewalld) □□

□□□□ Podman/Docker □□□□□□□□ □□□□□□□□ □□ □□□□