

파이썬과 AI 스피커를 활용한 데이터 분석

강사: 박필준

Basic Commands for Configuration

Raspberry Pi Basic Commands - Configurations

Change User Password

sudo raspi-config

```
Raspberry Pi 3 Model B Plus Rev 1.3

Raspberry Pi Software Configuration Tool (raspi-config)

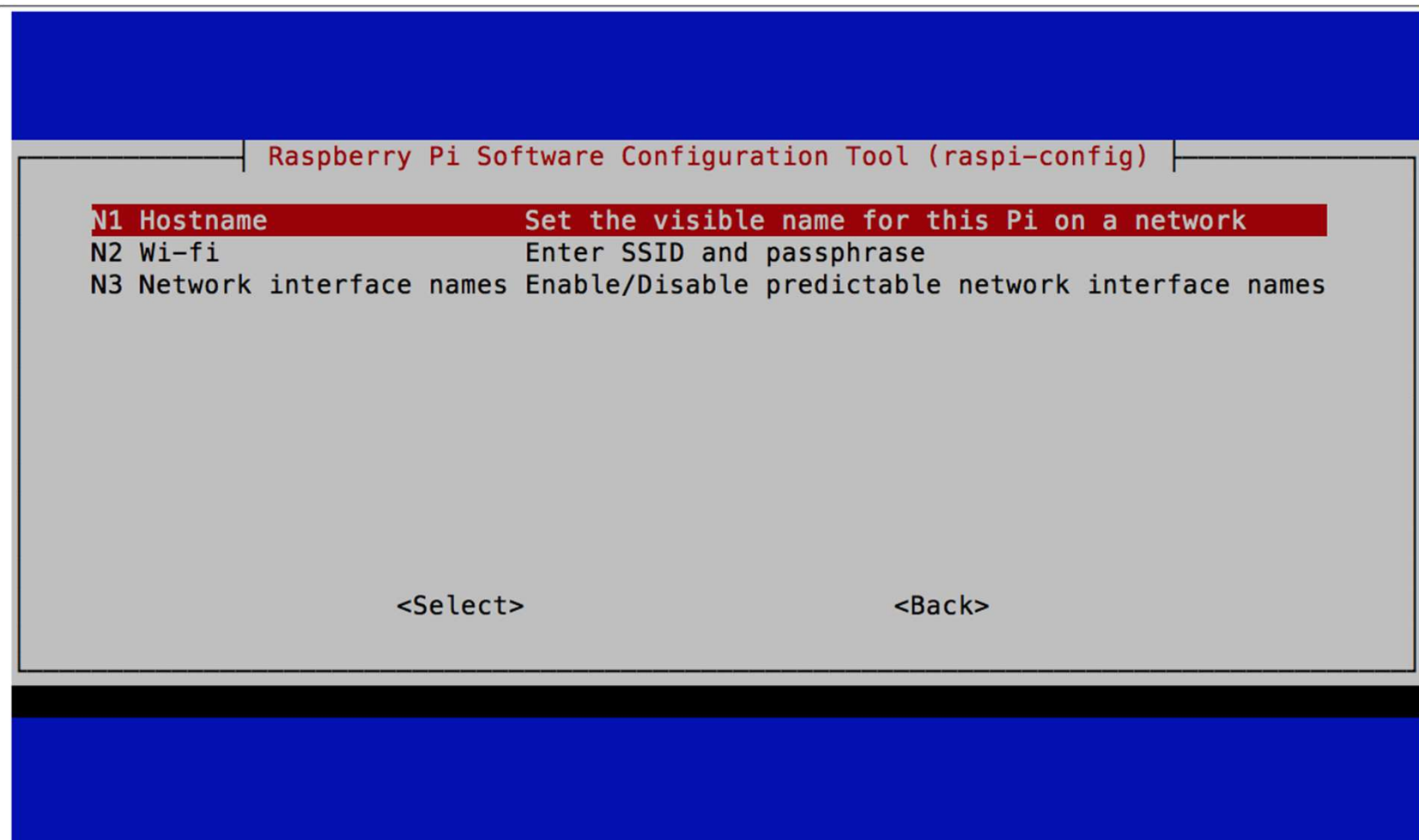
1 Change User Password Change password for the current user
2 Network Options       Configure network settings
3 Boot Options          Configure options for start-up
4 Localisation Options  Set up language and regional settings to match your locatio
5 Interfacing Options   Configure connections to peripherals
6 Overclock             Configure overclocking for your Pi
7 Advanced Options      Configure advanced settings
8 Update               Update this tool to the latest version
9 About raspi-config    Information about this configuration tool

<Select>                <Finish>
```

Raspberry Pi Basic Commands - Configurations

Network Options

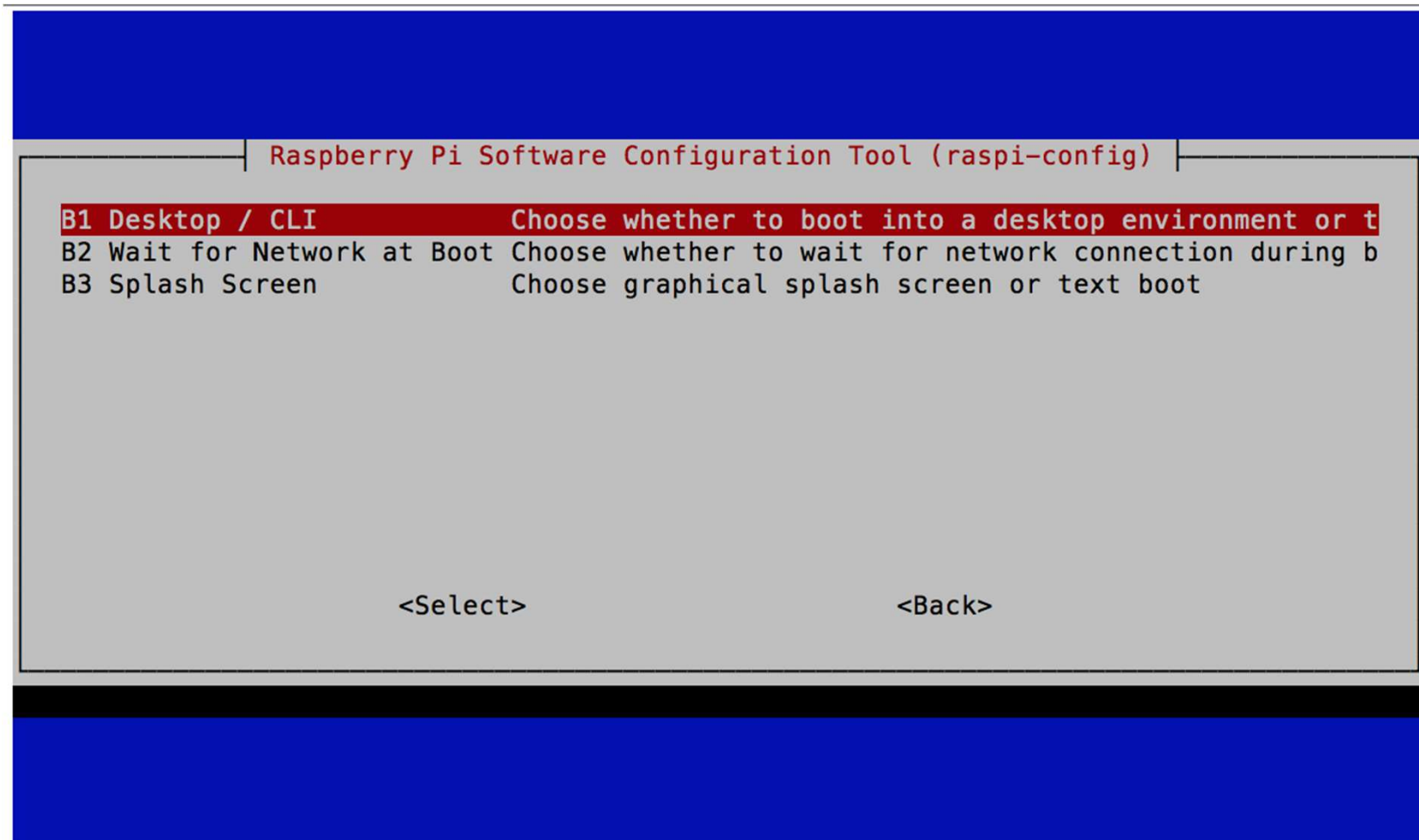
sudo raspi-config



Raspberry Pi Basic Commands - Configurations

Boot Options

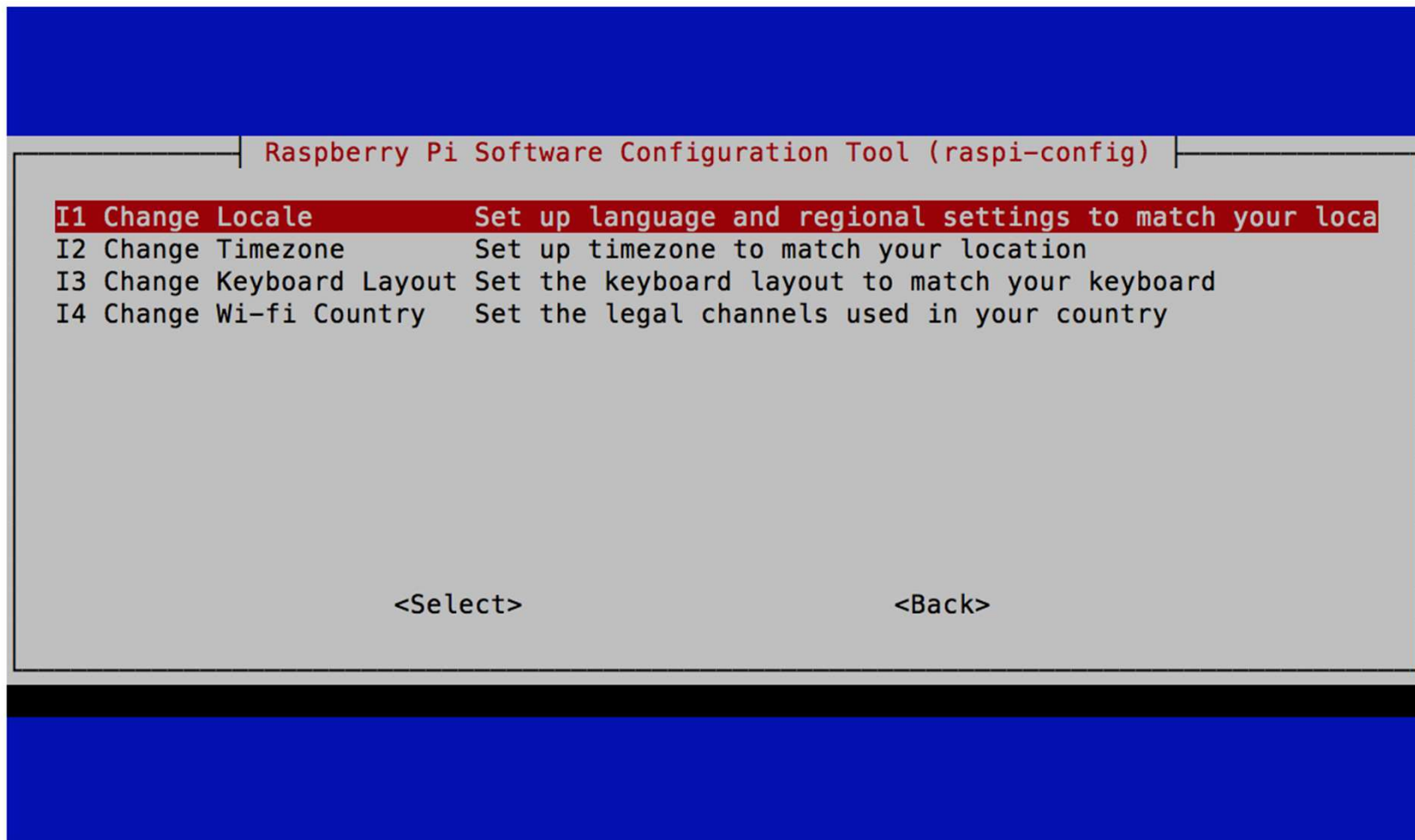
sudo raspi-config



Raspberry Pi Basic Commands - Configurations

Localization Options

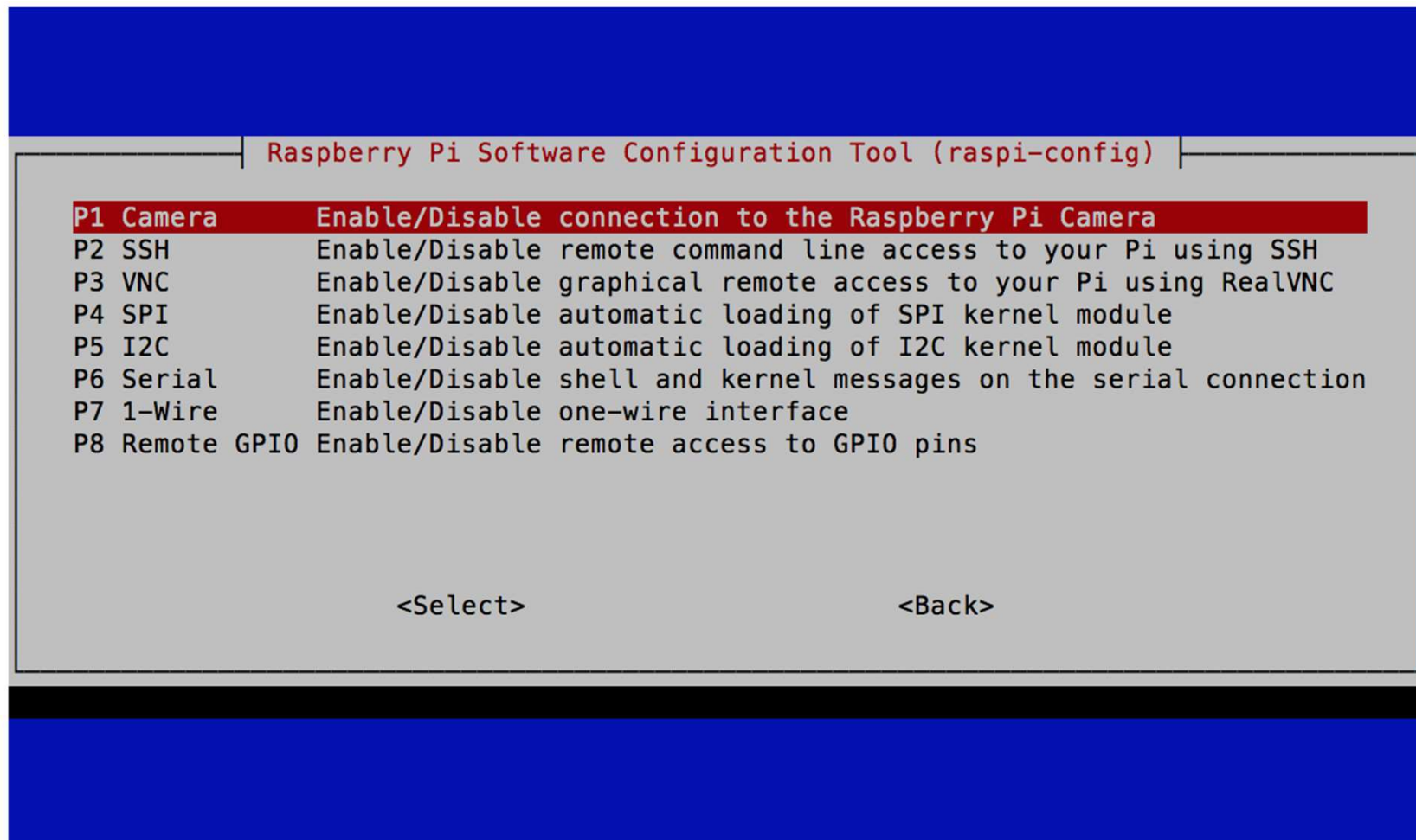
sudo raspi-config



Raspberry Pi Basic Commands - Configurations

Interfacing Options

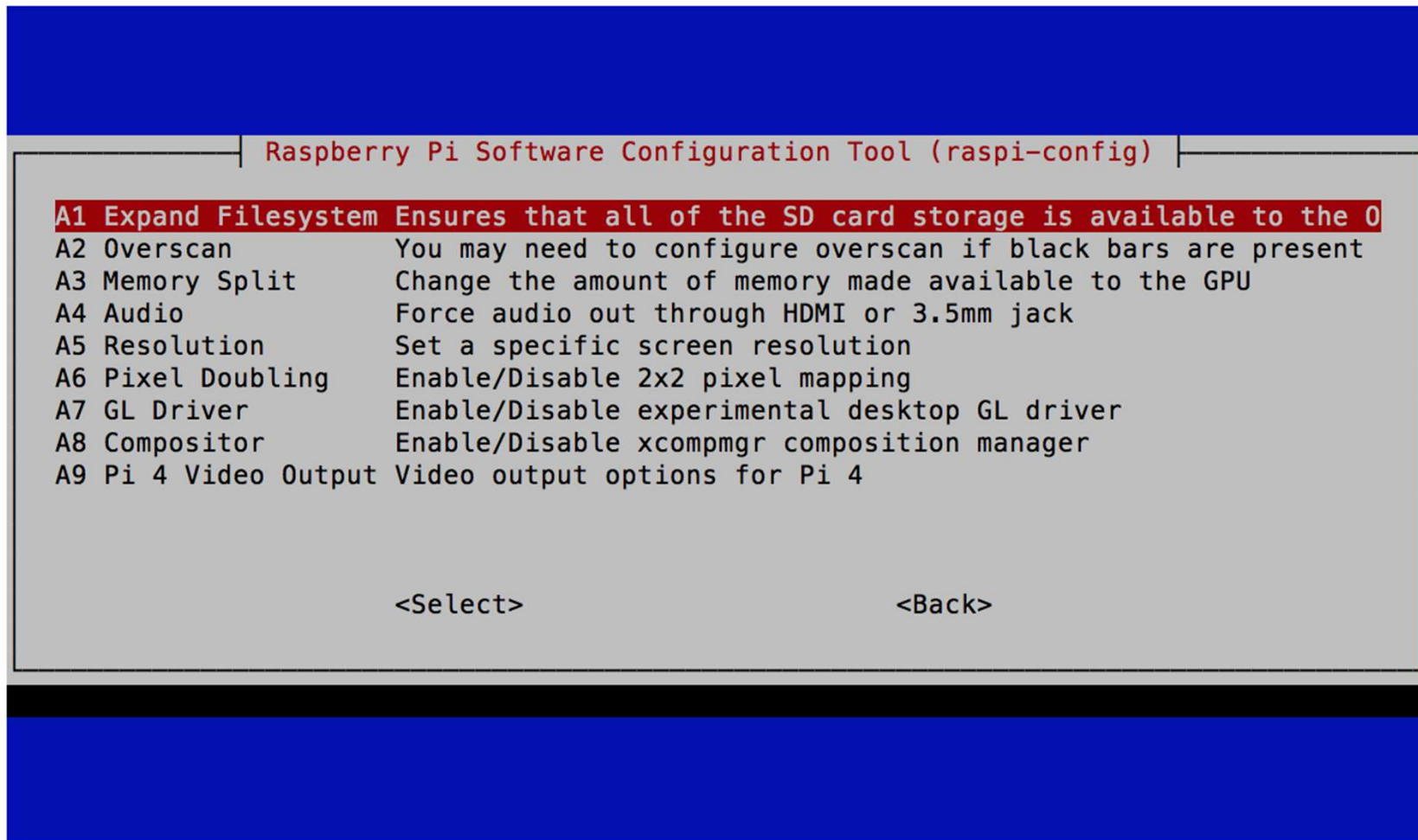
sudo raspi-config



Raspberry Pi Basic Commands - Configurations

Advanced Options

sudo raspi-config

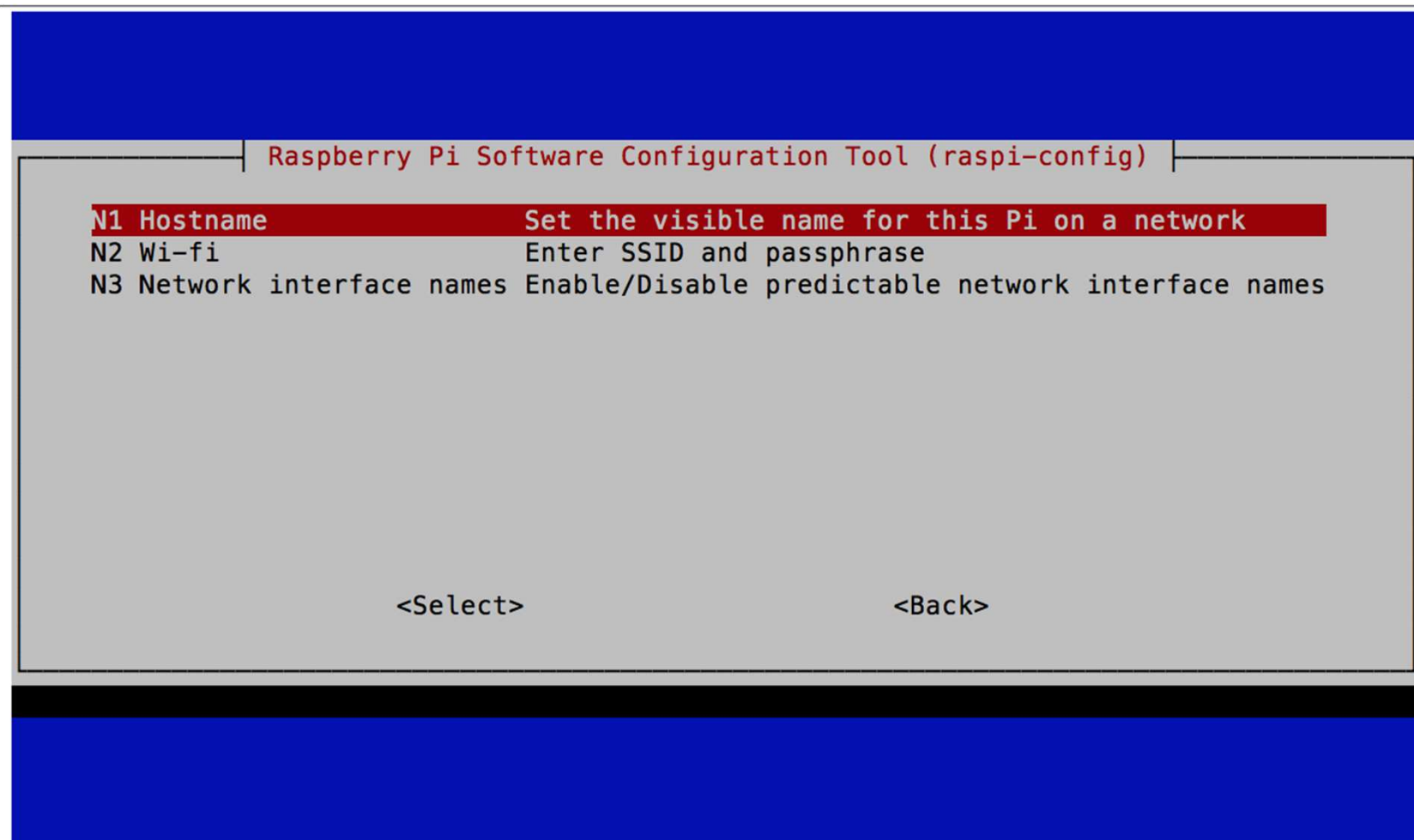


Change a Hostname

Raspberry Pi Basic Commands – Change a hostname

Network Options

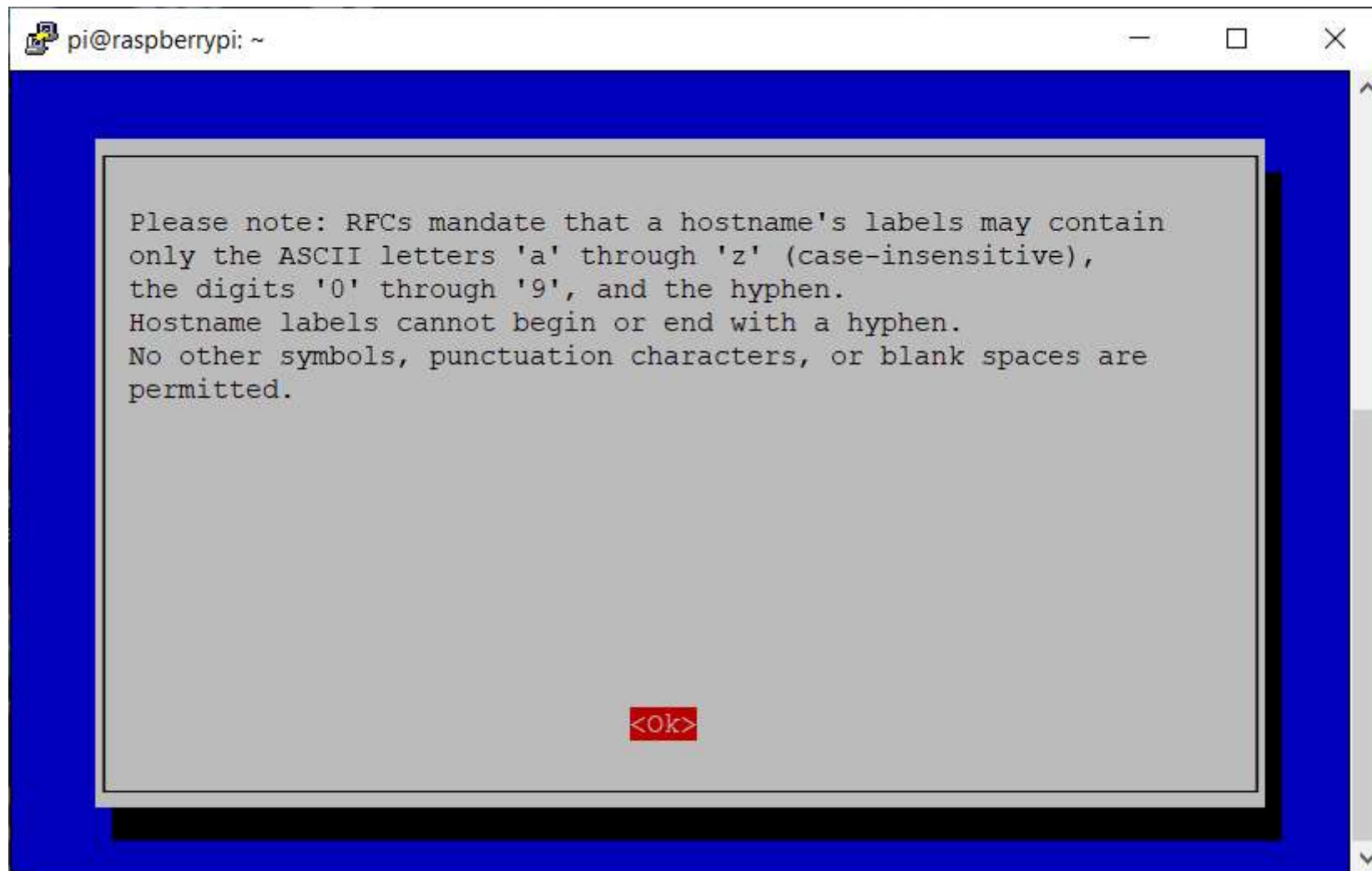
sudo raspi-config



Raspberry Pi Basic Commands – Change a hostname

Network Options

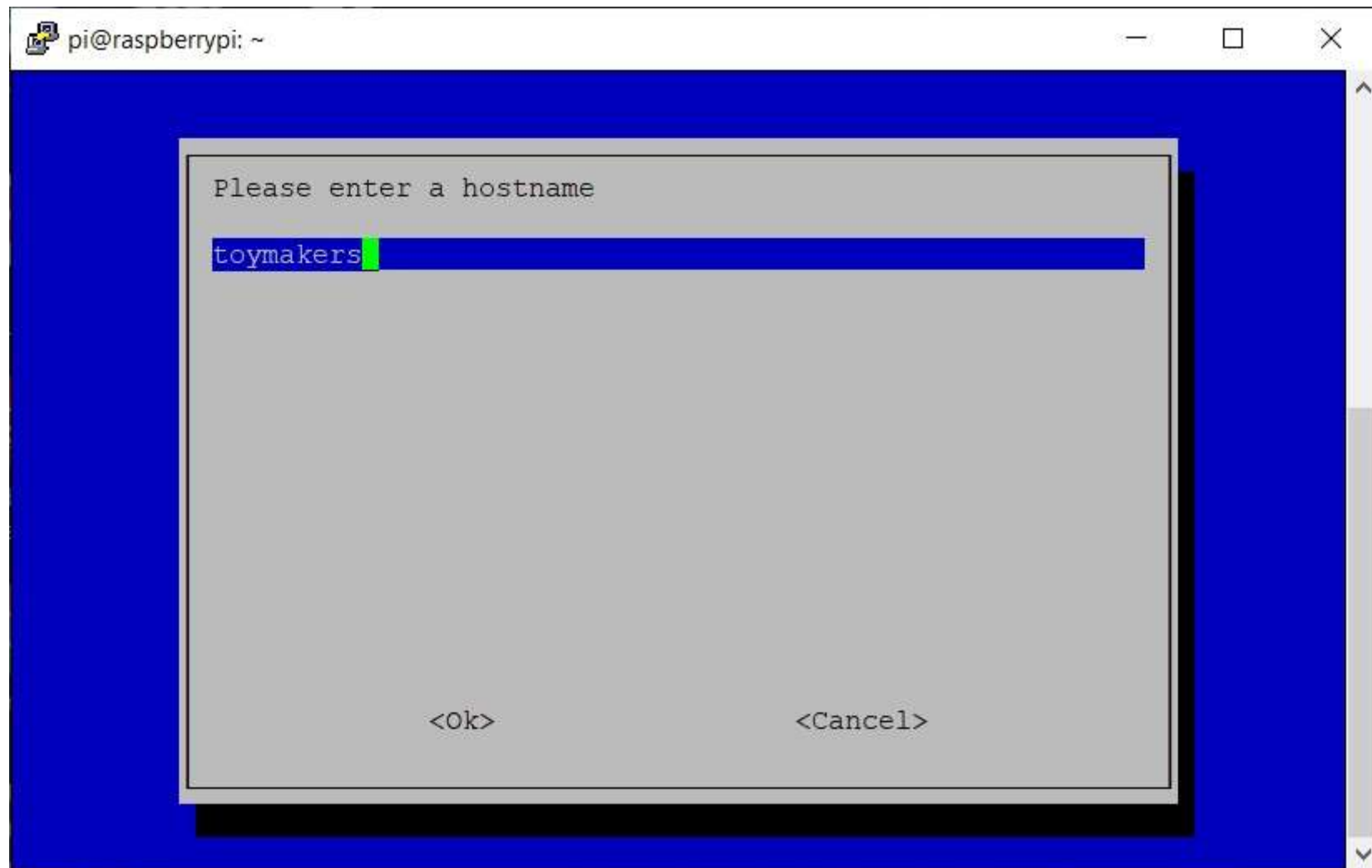
sudo raspi-config



Raspberry Pi Basic Commands – Change a hostname

Network Options

sudo raspi-config



Basic Commands on the Terminal

Raspberry Pi Basic Commands - Terminal

Reboot the OS

```
sudo reboot  
sudo shutdown -r now
```

Shutdown the OS

```
sudo halt  
sudo shutdown -h now
```

Update and upgrade of program packages

```
sudo apt-get update  
sudo apt-get upgrade
```

Scan IP address

Scan the IP address – Advanced IP scanner



advanced ip scanner



🔍 전체

📺 동영상

🖼️ 이미지

📰 뉴스

📍 지도

⋮ 더보기

설정

도구

검색결과 약 50,800,000개 (0.45초)

Advanced IP Scanner - Download Free Network Scanner.

<https://www.advanced-ip-scanner.com/> ▼ 이 페이지 번역하기

Advanced IP Scanner shows all network devices, gives you access to shared folders, and can even remotely switch computers off. Download it Free.

이 페이지를 19. 8. 19에 방문했습니다.

Advanced IP Scanner

Advanced IP Scanner가 모든 네트워크 장치를 보여주고, 공유 폴더 ...

도움말

Advanced IP Scanner - 도움말.
Advanced IP Scanner는 네트워크 ...

[advanced-ip-scanner.com](https://www.advanced-ip-scanner.com) 검색결과 더보기 >>

About Us

Advanced IP Scanner - About Us.
Founded in 1999, Famatech is ...

Help

Advanced IP Scanner - Help.
Advanced IP Scanner is fast ...

Scan the IP address – Advanced IP scanner



Advanced IP Scanner

Scan a network in seconds

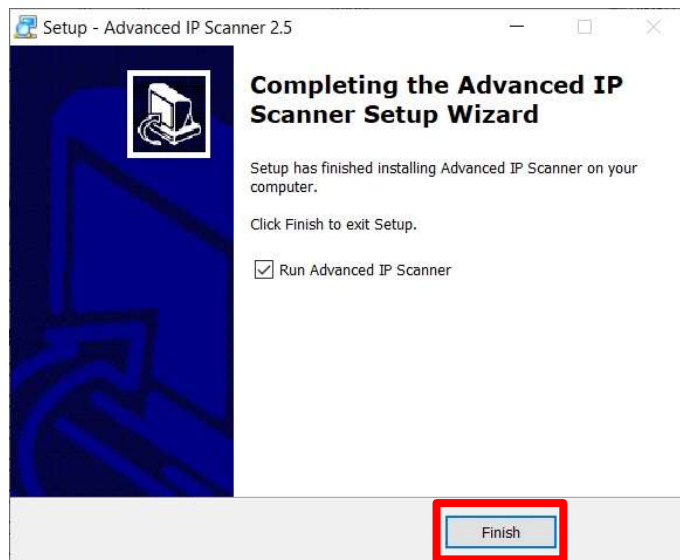
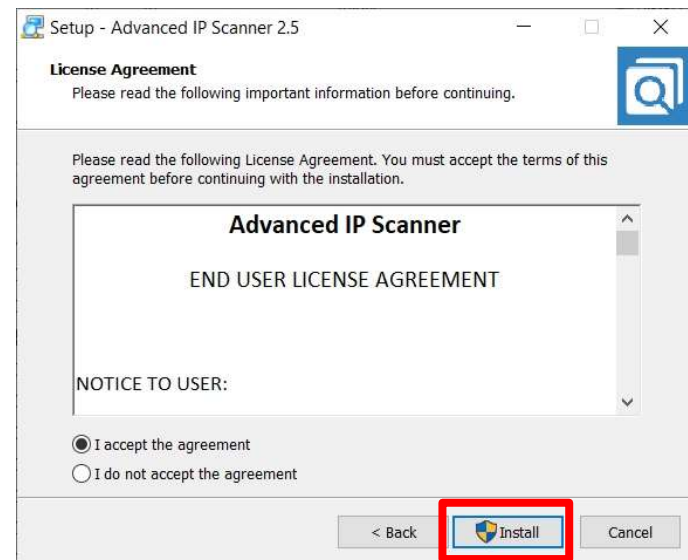
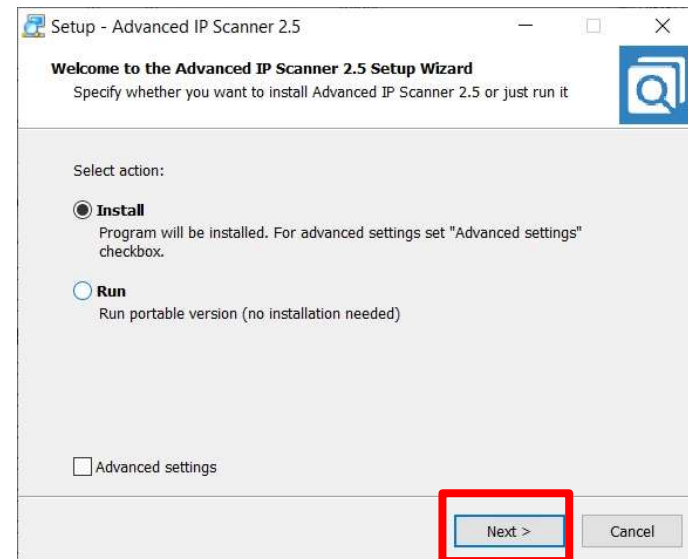
Free Advanced IP Scanner is trusted
by 40 million users

[Free Download](#)

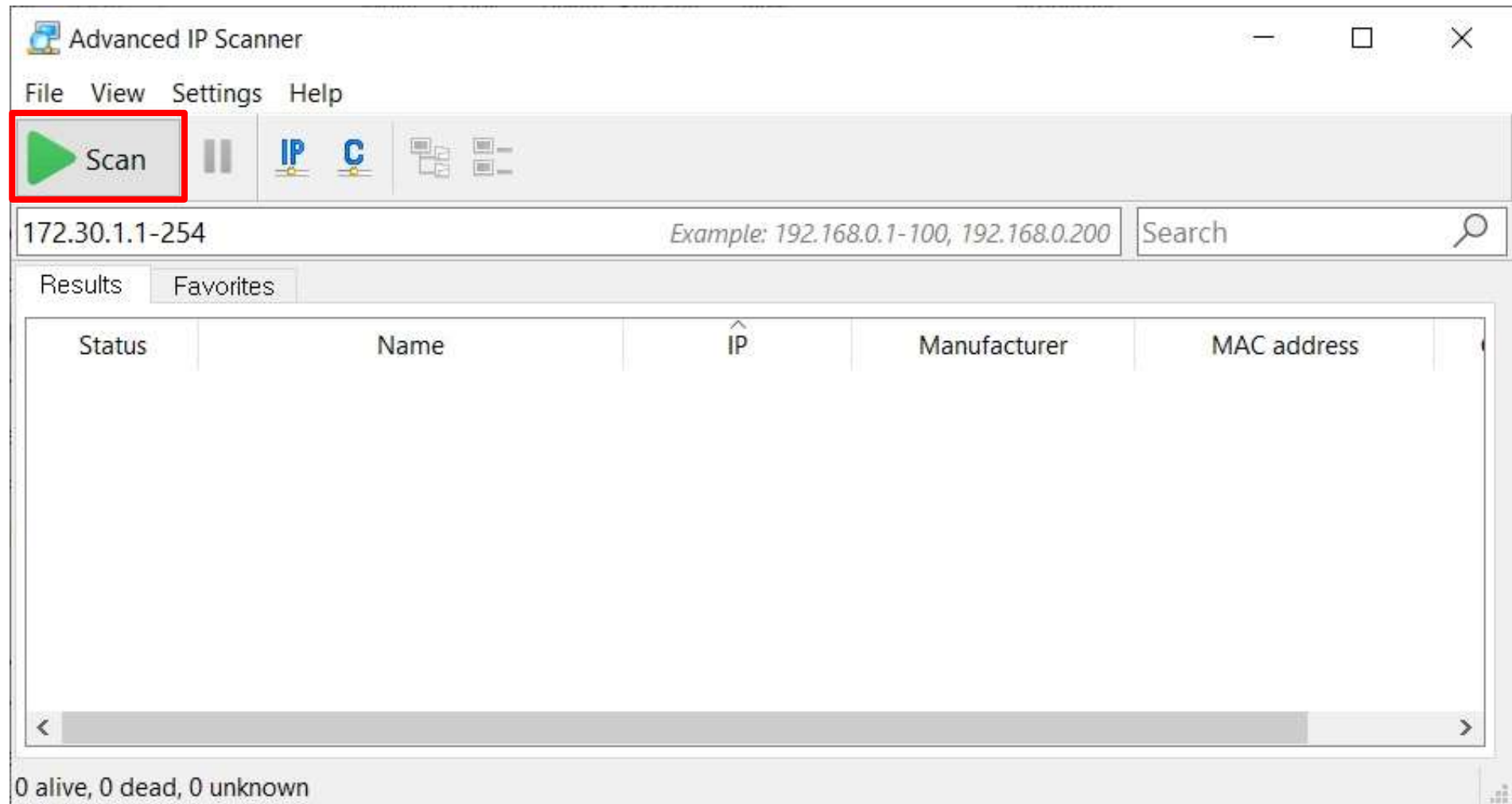
Compatible with Windows 10

Poll

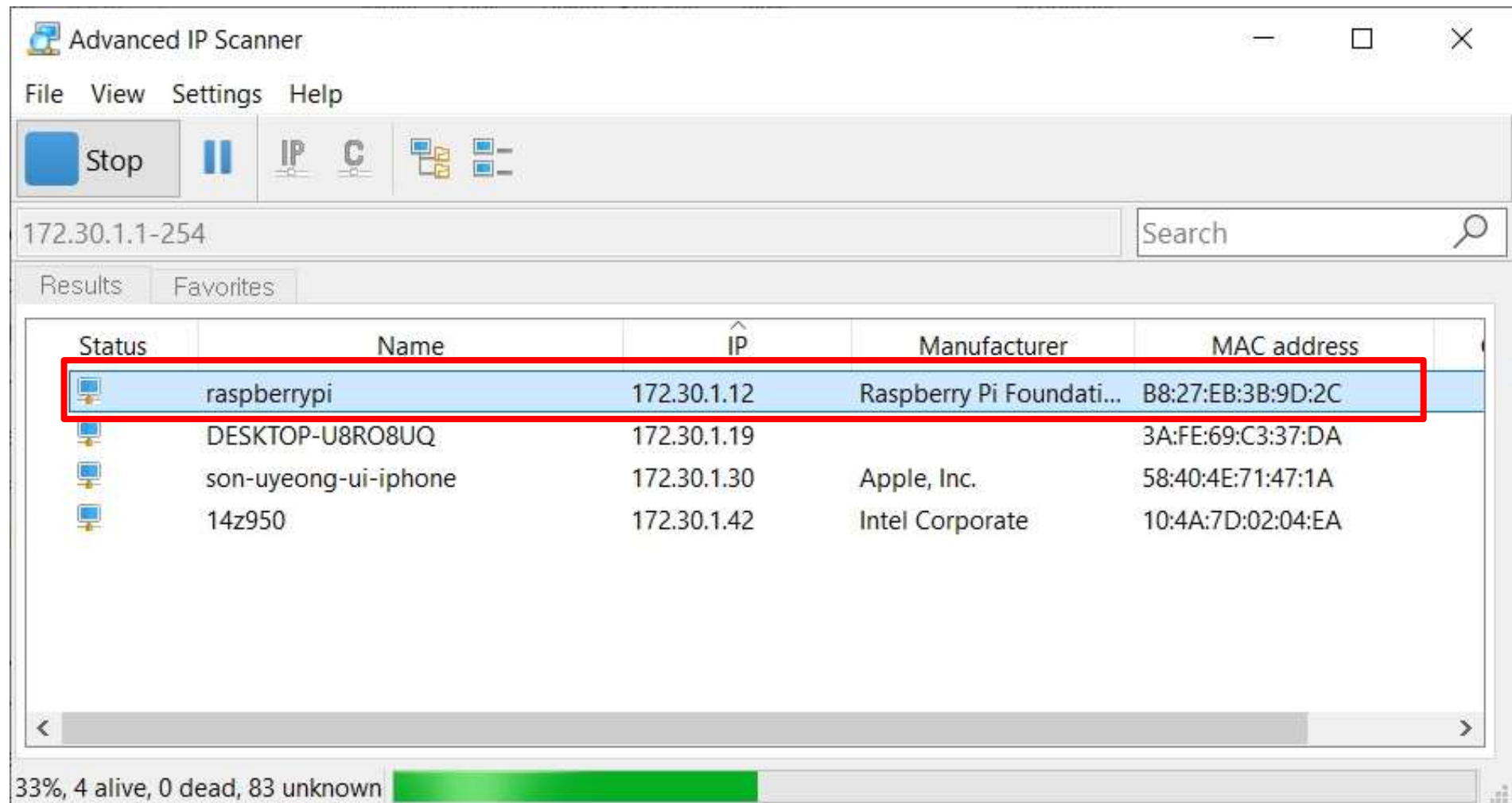
Scan the IP address – Advanced IP scanner



Scan the IP address – Advanced IP scanner



Scan the IP address – Advanced IP scanner



Advanced IP Scanner

File View Settings Help

Stop [Pause] [IP] [C] [Network Icons]

172.30.1.1-254 Search

Results Favorites

Status	Name	IP	Manufacturer	MAC address
[Icon]	raspberrypi	172.30.1.12	Raspberry Pi Foundati...	B8:27:EB:3B:9D:2C
[Icon]	DESKTOP-U8RO8UQ	172.30.1.19		3A:FE:69:C3:37:DA
[Icon]	son-uyeong-ui-iphone	172.30.1.30	Apple, Inc.	58:40:4E:71:47:1A
[Icon]	14z950	172.30.1.42	Intel Corporate	10:4A:7D:02:04:EA

< [Progress Bar] >

33%, 4 alive, 0 dead, 83 unknown

Basic Commands on the Terminal

Raspberry Pi Basic Commands - Terminal

pwd Print working directory

ls Print file and directory list



```
[pi@raspberrypi:~ $ pwd
/home/pi
[pi@raspberrypi:~ $ ls
Desktop    Downloads  Music      Public      thinclient_drives
Documents  MagPi      Pictures    Templates    Videos
[pi@raspberrypi:~ $ ls -l
total 40
drwxr-xr-x 2 pi pi 4096 Jun 20 18:06 Desktop
drwxr-xr-x 2 pi pi 4096 Jun 20 18:06 Documents
drwxr-xr-x 2 pi pi 4096 Jun 20 18:06 Downloads
drwxr-xr-x 2 pi pi 4096 Jun 20 17:55 MagPi
drwxr-xr-x 2 pi pi 4096 Jun 20 18:06 Music
drwxr-xr-x 2 pi pi 4096 Jun 20 18:06 Pictures
drwxr-xr-x 2 pi pi 4096 Jun 20 18:06 Public
drwxr-xr-x 2 pi pi 4096 Jun 20 18:06 Templates
drwxr-xr-t 2 pi pi 4096 Jul  1 11:53 thinclient_drives
drwxr-xr-x 2 pi pi 4096 Jun 20 18:06 Videos
pi@raspberrypi:~ $
```


Raspberry Pi Basic Commands - Terminal

mkdir [directory name] Make a directory

cd [directory name] Change a directory



```
[pi@raspberrypi:~ $ ls
Desktop  Downloads  Music      Public      thinclient_drives
Documents MagPi      Pictures   Templates   Videos
[pi@raspberrypi:~ $ mkdir aaa
[pi@raspberrypi:~ $ ls
aaa      Documents  MagPi      Pictures    Templates   Videos
Desktop  Downloads  Music      Public      thinclient_drives
[pi@raspberrypi:~ $ cd aaa
[pi@raspberrypi:~/aaa $ ls
[pi@raspberrypi:~/aaa $ cd ..
[pi@raspberrypi:~ $ ls
aaa      Documents  MagPi      Pictures    Templates   Videos
Desktop  Downloads  Music      Public      thinclient_drives
pi@raspberrypi:~ $
```

Raspberry Pi Basic Commands - Terminal

cd Move to the directory as /home/pi



```
[pi@raspberrypi:~ $ cd aaa
[pi@raspberrypi:~/aaa $ ls
[pi@raspberrypi:~/aaa $ mkdir bbb
[pi@raspberrypi:~/aaa $ ls
bbb
[pi@raspberrypi:~/aaa $ cd bbb/
[pi@raspberrypi:~/aaa/bbb $ ls
[pi@raspberrypi:~/aaa/bbb $ pwd
/home/pi/aaa/bbb
[pi@raspberrypi:~/aaa/bbb $ cd
[pi@raspberrypi:~ $ pwd
/home/pi
pi@raspberrypi:~ $ █
```


Raspberry Pi Basic Commands - Terminal

tree List contents of directories



```
[pi@raspberrypi:~ $ tree
.
├── aaa
├── Desktop
├── Documents
├── Downloads
├── MagPi
│   └── MagPi82.pdf
├── Music
├── Pictures
├── Public
├── Templates
├── thinclient_drives
└── Videos

11 directories, 1 file
pi@raspberrypi:~ $
```

Raspberry Pi Basic Commands - Terminal

man [command] On-line reference manuals

man ls



```
LS(1)                                User Commands                                LS(1)

NAME
    ls - list directory contents

SYNOPSIS
    ls [OPTION]... [FILE]...

DESCRIPTION
    List information about the FILES (the current directory by default). Sort en-
    tries alphabetically if none of -cftuvSUX nor --sort is specified.

    Mandatory arguments to long options are mandatory for short options too.

    -a, --all
        do not ignore entries starting with .

    -A, --almost-all
        do not list implied . and ..

    --author
        with -l, print the author of each file

    -b, --escape
        print C-style escapes for nongraphic characters
Manual page ls(1) line 1 (press h for help or q to quit)
```

Raspberry Pi Basic Commands - Terminal

nano [file name] Open the text editor

nano tmp



```
GNU nano 3.2                               tmp                               Modified
Hello~

[ New File ]
^G Get Help    ^O Write Out  ^W Where Is   ^K Cut Text   ^J Justify    ^C Cur Pos
^X Exit        ^R Read File  ^\ Replace    ^U Uncut Text ^T To Spell   ^_ Go To Line
```

Raspberry Pi Basic Commands - Terminal

cp [file name] [new file name]

Copy a file

mv [file name] [new file name]

Modify a file name



```
[pi@raspberrypi:~ $ nano tmp
[pi@raspberrypi:~ $ ls
aaa      Documents  MagPi  Pictures  Templates  tmp
Desktop  Downloads  Music  Public   thinclient_drives  Videos
[pi@raspberrypi:~ $ cp tmp tmp2
[pi@raspberrypi:~ $ ls
aaa      Documents  MagPi  Pictures  Templates  tmp  Videos
Desktop  Downloads  Music  Public   thinclient_drives  tmp2
[pi@raspberrypi:~ $ mv tmp tmp1
[pi@raspberrypi:~ $ ls
aaa      Documents  MagPi  Pictures  Templates  tmp1  Videos
Desktop  Downloads  Music  Public   thinclient_drives  tmp2
pi@raspberrypi:~ $
```

Raspberry Pi Basic Commands - Terminal

rm [file name] Delete a file

rm tmp1



```
[pi@raspberrypi:~ $ ls
aaa      Documents  MagPi  Pictures  Templates  tmp1  Videos
Desktop  Downloads  Music  Public   thinclient_drives  tmp2
[pi@raspberrypi:~ $ rm tmp1
[pi@raspberrypi:~ $ ls
aaa      Documents  MagPi  Pictures  Templates  tmp2
Desktop  Downloads  Music  Public   thinclient_drives  Videos
pi@raspberrypi:~ $ █
```

Raspberry Pi Basic Commands - Terminal

rm -rf [directory name] Delete directories and files

rm -rf aaa



```
[pi@raspberrypi:~ $ ls
aaa      Documents  MagPi  Pictures  Templates  tmp2
Desktop  Downloads  Music  Public   thinclient_drives  Videos
[pi@raspberrypi:~ $ rm aaa
rm: cannot remove 'aaa': Is a directory
[pi@raspberrypi:~ $ rm -rf aaa
[pi@raspberrypi:~ $ ls
Desktop  Downloads  Music  Public   thinclient_drives  Videos
Documents MagPi      Pictures  Templates  tmp2
pi@raspberrypi:~ $
```


Raspberry Pi Basic Commands - Terminal

ifconfig Configure a network interface



```
[pi@raspberrypi:~ $ ifconfig
eth0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    ether b8:27:eb:94:74:f1 txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 267 bytes 20948 (20.4 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 267 bytes 20948 (20.4 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

wlan0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.0.14 netmask 255.255.255.0 broadcast 192.168.0.255
    inet6 fe80::7cba:42b3:c932:69d0 prefixlen 64 scopeid 0x20<link>
    ether b8:27:eb:c1:21:a4 txqueuelen 1000 (Ethernet)
    RX packets 97849 bytes 117854917 (112.3 MiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 77670 bytes 19179530 (18.2 MiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

pi@raspberrypi:~ $
```

