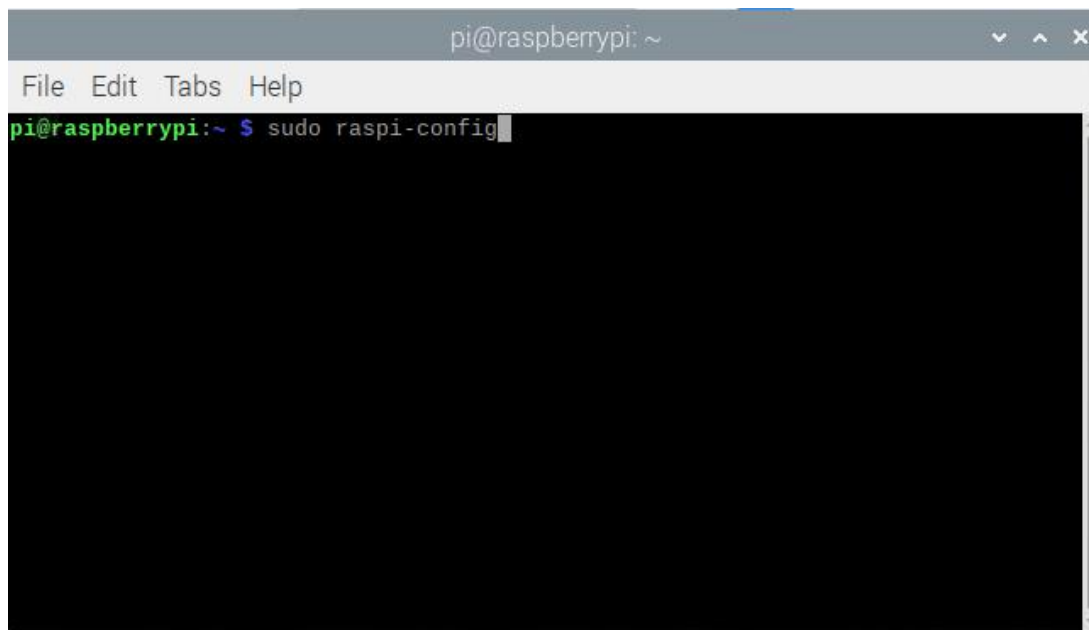


The Raspberry Pi usually automatically assigns the most suitable resolution to the display screen for the first time, but may be individual displays that are incompatible. We need to modify the resolution in the following ways.

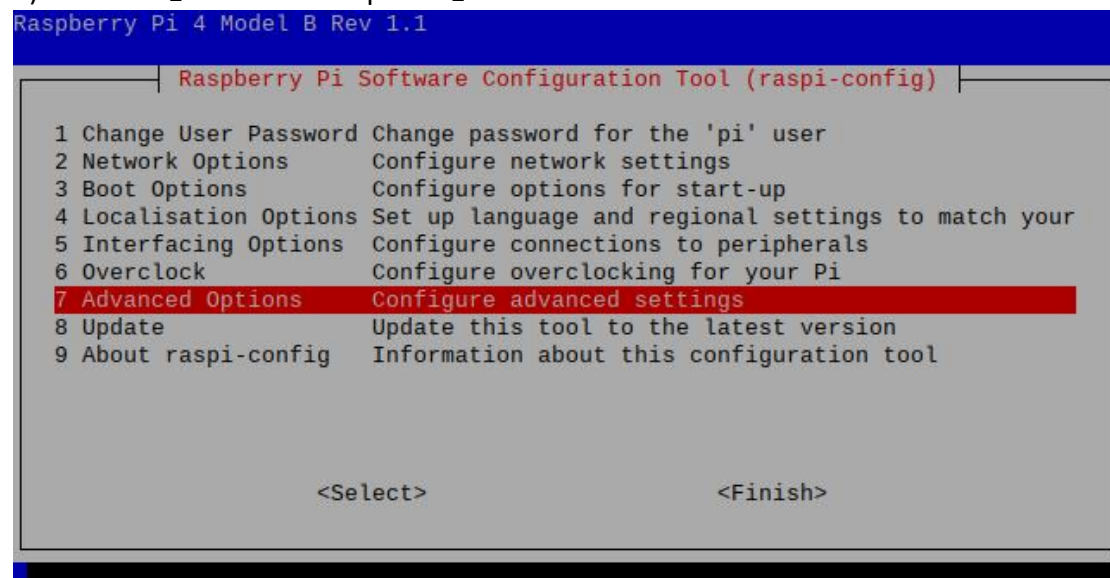
When we use VNC remote desktop to log in, the size of the VNC remote desktop is also affected by the resolution of the Raspberry Pi. When the remote desktop display is too small, we can also adjust the display resolution of the Raspberry Pi to make VNC remote desktop becomes larger.

### 1. Modify the resolution of the Raspberry Pi system (permanent)

1) Enter the command: `sudo raspi-config`

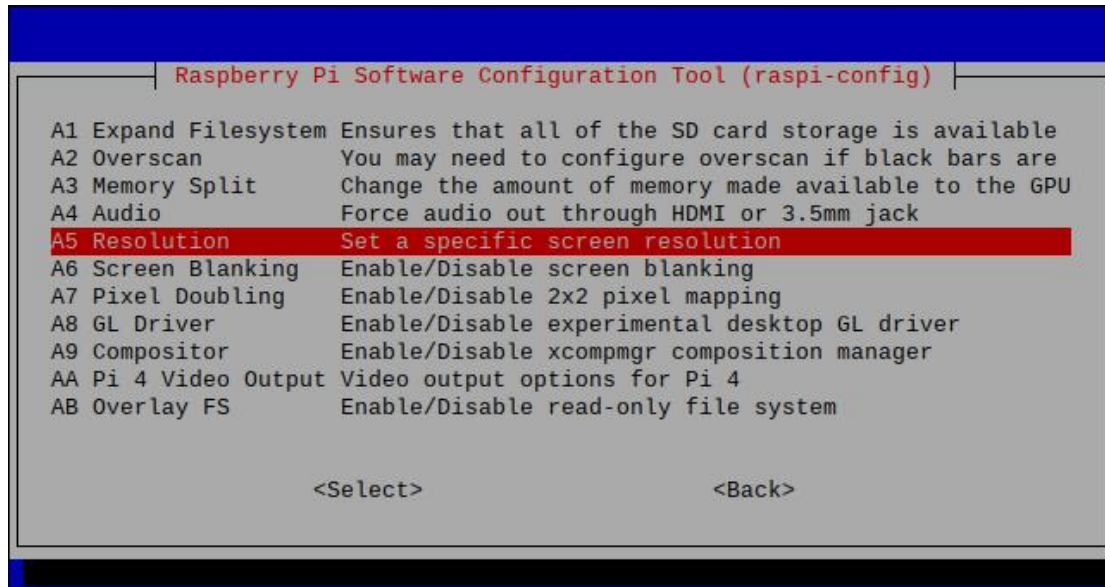
A terminal window titled 'pi@raspberrypi: ~' with a menu bar containing 'File', 'Edit', 'Tabs', and 'Help'. The command prompt shows 'pi@raspberrypi:~ \$ sudo raspi-config' with the cursor at the end of the command.

2) Choose-- **【7 Advanced Options】** .

A screenshot of the 'Raspberry Pi Software Configuration Tool (raspi-config)' menu. The title bar says 'Raspberry Pi 4 Model B Rev 1.1'. The menu lists several options, with '7 Advanced Options' highlighted in red. At the bottom, there are '<Select>' and '<Finish>' buttons.

Raspberry Pi Software Configuration Tool (raspi-config)	
1 Change User Password	Change password for the 'pi' 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
5 Interfacing Options	Configure connections to peripherals
6 Overclock	Configure overclocking for your Pi
<b>7 Advanced Options</b>	<b>Configure advanced settings</b>
8 Update	Update this tool to the latest version
9 About raspi-config	Information about this configuration tool

3) Choose-- **【A5 Resolution】**

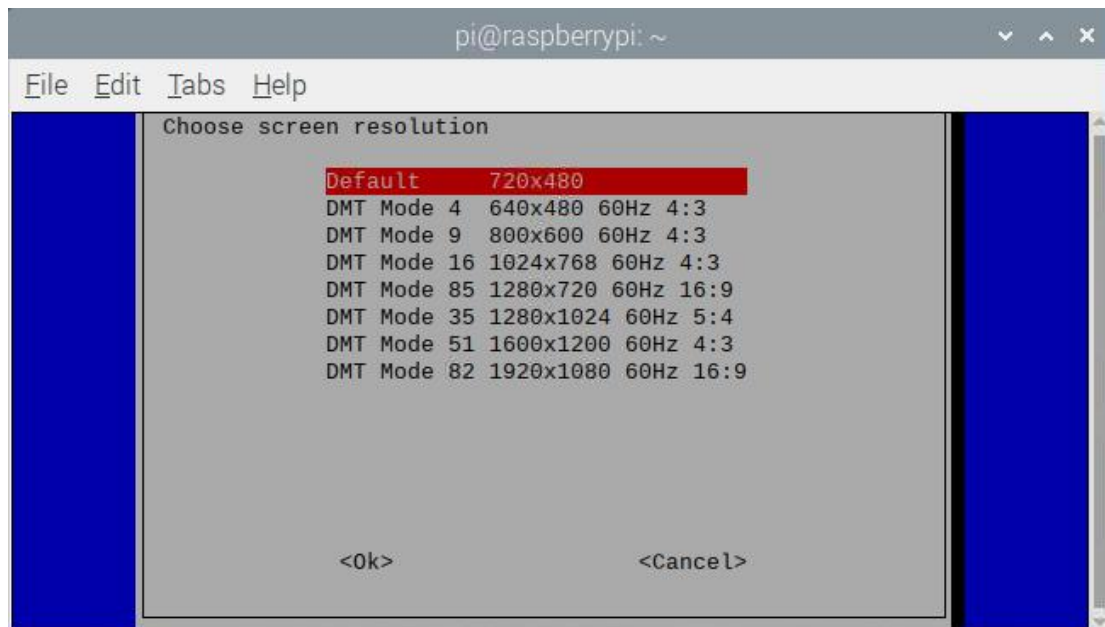


4) Choose the appropriate resolution according to your needs. Generally, if you don't connect to the display, the following resolutions can be selected. The resolution that may be selected after the display is connected will change according to the actual situation of the display.

Ps: If we use the official image of the Raspberry Pi, and open the vnc service through putty/Xshell. If the display is not connected at the first startup, the VNC remote desktop may not be used. It will prompt "Cannot current show the desktop".

Solution:

We can set a resolution for the Raspberry Pi via putty/Xshell and restart it.



## 2. VNC remote desktop resolution adjustment (Temporary)

1) Enter the command: `vncserver -geometry resolution`

For example: `vncserver -geometry 1024x768`

```

pi@raspberrypi: ~
File Edit Tabs Help
pi@raspberrypi:~ $ vncserver -geometry 1024x768
VNC(R) Server 6.6.0 (r41949) ARMv6 (Sep 20 2019 16:34:47)
Copyright (C) 2002-2019 RealVNC Ltd.
RealVNC and VNC are trademarks of RealVNC Ltd and are protected by trademark
registrations and/or pending trademark applications in the European Union,
United States of America and other jurisdictions.
Protected by UK patent 2481870; US patent 8760366; EU patent 2652951.
See https://www.realvnc.com for information on VNC.
For third party acknowledgements see:
https://www.realvnc.com/docs/6/foss.html
OS: Raspbian GNU/Linux 10, Linux 4.19.97+, armv6l

Generating private key... done
On some distributions (in particular Red Hat), you may get a better experience
by running vncserver-virtual in conjunction with the system Xorg server, rather
than the old version built-in to Xvnc. More desktop environments and
applications will likely be compatible. For more information on this alternativ
e
implementation, please see: https://www.realvnc.com/doclink/kb-546

```

Ps: The x number is used between resolutions, not the \* number. It will be invalid after every restart, you need to re-run the resolution setting command

```

pi@raspberrypi: ~
File Edit Tabs Help
https://www.realvnc.com/docs/6/foss.html
OS: Raspbian GNU/Linux 10, Linux 4.19.97+, armv6l

Generating private key... done
On some distributions (in particular Red Hat), you may get a better experience
by running vncserver-virtual in conjunction with the system Xorg server, rather
than the old version built-in to Xvnc. More desktop environments and
applications will likely be compatible. For more information on this alternativ
e
implementation, please see: https://www.realvnc.com/doclink/kb-546

Running applications in /etc/vnc/xstartup

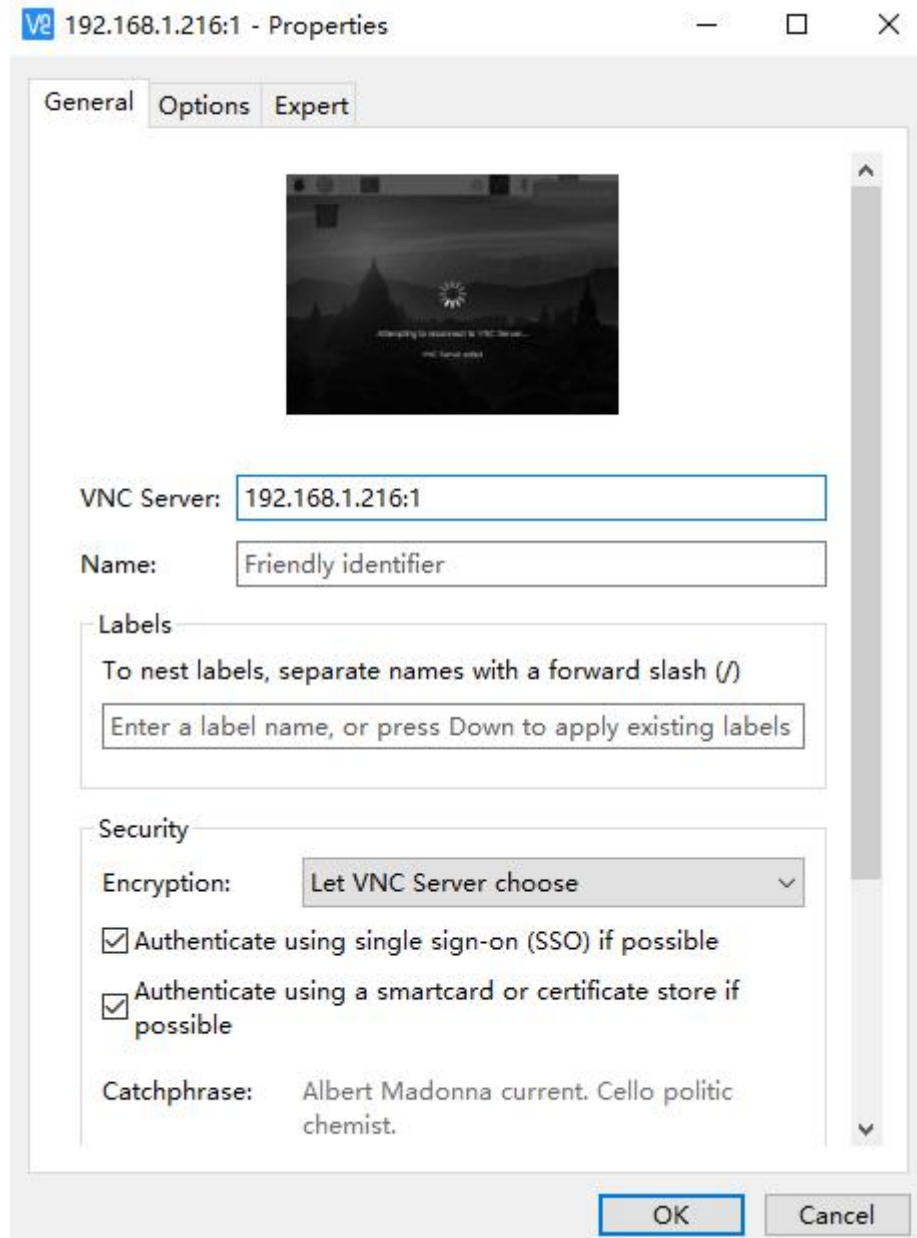
VNC Server catchphrase: "Major talent minus. Comedy Athena binary."
signature: 30-58-b7-48-56-e4-59-0b

Log file is /home/pi/.vnc/raspberrypi:1.log
New desktop is raspberrypi:1 (192.168.1.216:1)
pi@raspberrypi:~ $

```

2. Open VNC software, input your IP address + :1

As shown below.



3. It can be seen that the VNC remote desktop has been switched from the original resolution to 1024x768.

After switching the resolution, the original mouse symbol will become an x.

