

\* 基于树莓派操作系统课程设计指导文档（主要的指导书）

附件 rpi-guide-book.pdf

\* 带有 raspi3 机器类型的 QEMU 程序（官方 release 已经包含该机器类型）

<https://www.qemu.org/download/>

Windows

<https://qemu.weilnetz.de/w64/>

<https://qemu.weilnetz.de/w64/qemu-w64-setup-20180424.exe>

Linux 可从发行版本的软件包源获得

macOS 可从 homebrew 获得

\* 一个用于验证 QEMU 仿真器和树莓派环境可正常启动的二进制内核镜像

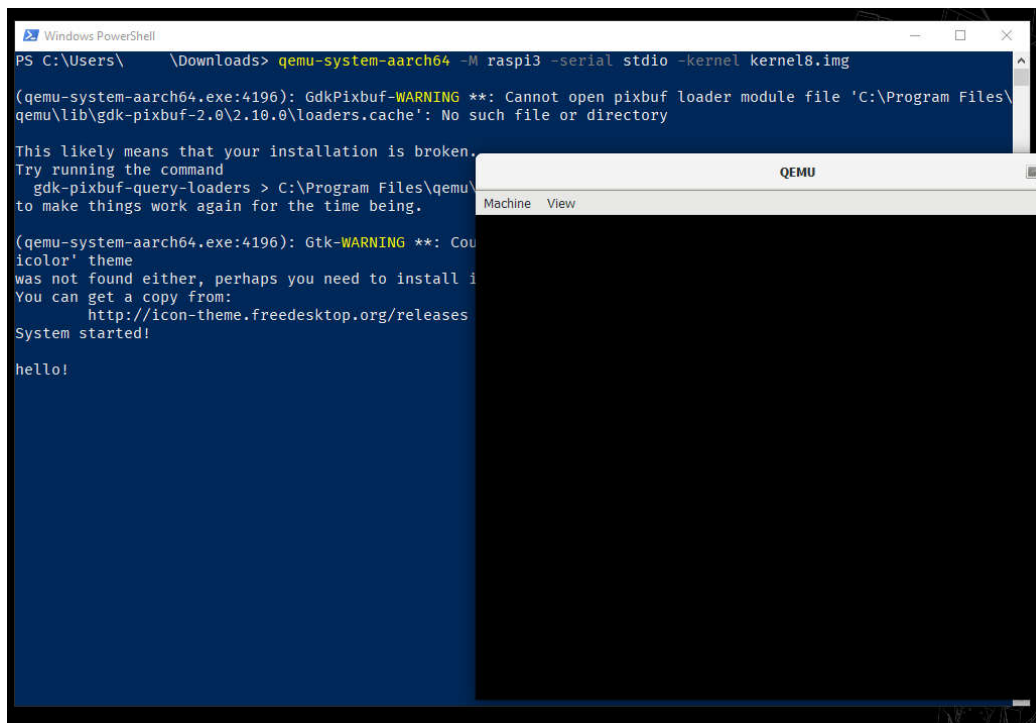
附件 kernel8.img

在 Windows 下的用法

将 C:\Program Files\qemu 添加到\$PATH；在 kernel8.img 目录执行命令即可。

`System started!' 是内核的输出，之后会进入回显模式（也就是你输入什么它输出什么）

QEMU 的 graphic 窗体无视即可（用 -nographic 参数关闭窗体似乎会导致串口乱码）



```
PS C:\Users\...\Downloads> qemu-system-aarch64 -M raspi3 -serial stdio -kernel kernel8.img

(qemu-system-aarch64.exe:4196): GdkPixbuf-WARNING **: Cannot open pixbuf loader module file 'C:\Program Files\
qemu\lib\gdk-pixbuf-2.0\2.10.0\loaders.cache': No such file or directory

This likely means that your installation is broken.
Try running the command
gdk-pixbuf-query-loaders > C:\Program Files\qemu\
to make things work again for the time being.

(qemu-system-aarch64.exe:4196): Gtk-WARNING **: Could not load any icon theme
was not found either, perhaps you need to install i
You can get a copy from:
http://icon-theme.freedesktop.org/releases
System started!

hello!
```

\* 交叉编译器（按照指导书的说明获取）

Prebuilt Linaro 交叉工具链

<https://www.linaro.org/downloads/>

<https://releases.linaro.org/components/toolchain/binaries/latest/aarch64-elf/>

\*ARM® Cortex®-A Series Programmer's Guide for ARMv8-A

[http://infocenter.arm.com/help/topic/com.arm.doc.den0024a/DEN0024A\\_v8\\_architecture\\_PG.pdf](http://infocenter.arm.com/help/topic/com.arm.doc.den0024a/DEN0024A_v8_architecture_PG.pdf)

\* ARM® Cortex®-A53 MPCore Processor Technical Reference Manual

[http://infocenter.arm.com/help/topic/com.arm.doc.ddi0500d/DDI0500D\\_cortex\\_a53\\_r0p2\\_trm.pdf](http://infocenter.arm.com/help/topic/com.arm.doc.ddi0500d/DDI0500D_cortex_a53_r0p2_trm.pdf)