
Plan 9 Documentation Task Force

TIP9UG Authors

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PLAN 9 (4TH ED.) TUTORIAL

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INTRODUCTION

In general, Plan9 is considered beyond the average computer user's knowledge. We want to improve Plan 9 documentation for entry-level users. Plan 9 mastery begins at mastering the basics. It is the project's intention to create clear and concise documentation to promote Plan 9 use and enjoyment.

1.1 Getting started

1.1.1 Status

Plan 9 (4th Edition) is available for general use.

1.1.2 System requirements

- 90 MHz or greater Intel/ARM 32-bit processor
- 32 MiB of RAM (system memory for physical and virtualized installs)
- SVGA capable of 800x600 screen resolution or greater
- Network connection
- 300 MiB of storage (SD, IDE, SATA, SAS)
- Either a CD/DVD drive or a USB port for booting the installer media

These requirements are for the installation procedure. A machine with 16MB of memory and no free disk space will work as a terminal but won't run the installer so you need a file server and auth server first.

If you wish to install from local media, you need a FAT file system or a CD-ROM drive with write capability to get the distribution on a CD.

If you wish to install over the internet, you need a supported Ethernet card or a PPP dial-up account using a modem (not a Winmodem).

Site Planning

There is nothing magical about installing Plan 9. It's just a matter of populating a Plan 9 file system (typically a fossil file system) and arranging a bootstrap to eventually load a Plan 9 kernel that can use that file system as its root.

Once that initial file server is running, enabling authentication and pxe booting (bootp and tftp) will allow all other local Plan 9 systems to load kernels from the file server and share its file system.

If you find yourself reinstalling Plan 9 frequently, something is wrong. This should not be necessary. In particular, there is no need to give each Plan 9 system its own file system.

Tested hardware

Plan 9 is known to boot to a graphical desktop on the following machines. Auxiliary functionality such as wireless networking, sound over HDMI, sleep, graphics acceleration, etc. has not yet been tested systematically.

Please contact us if you would like to sponsor the project with a hardware donation. We are especially looking for Lenovo devices from the previous generations that should be available second-hand inexpensively.

Networking hardware

Not all networking devices are supported by Plan 9 yet.

Virtualization environments

We recommend beginners run Plan 9 on virtual environments if possible. This should give you the best hardware support.

Users have reported success in running Plan 9 in the following virtualization environments:

- VirtualBox host (on FreeBSD and macOS), known to work in BIOS mode
- VMware host (on Windows), possibly only working in BIOS mode?
- QEMU host (on Linux), works in BIOS mode.

QEMU

Create an 1 GiB (or larger) plan9.img image file on which you can install the system:

```
$ pwd
/home/user
$ mkdir -p .qemu/plan9
$ fallocate -l $(( 1*1024*1024*1024 )) .qemu/plan9/plan9.img
```

Then, boot Plan 9:

```
qemu-system-x86_64 -machine type=q35,accel=kvm \
-enable-kvm -cpu host -smp 2 -m 1024 \
-device virtio-net,netdev=vmnic -netdev user,id=vmnic,hostfwd=tcp::5222-:22 \
-vga std -soundhw hda -no-quit \
-drive format=raw,file=${HOME}/.qemu/plan9/plan9.img \
-drive format=raw,file=${HOME}/Downloads/plan9.iso \
-boot menu=on
```

When QEMU starts, press `esc` and select 2 to boot the ISO.

1.1.3 Downloading

The **Plan 9** ISO image is available for download [here](#).

1.2 Getting to know the system

1.3 Troubleshooting

1.4 Frequently Asked Questions

This document aims to cover the most frequently asked questions concerning the Plan 9 operating system. Although initially intended to reduce bandwidth and avoid the same old questions being asked repeatedly, FAQs have become recognized as valuable information resources.

Every effort has been made to make this FAQ as informative as possible; if you have any suggestions about improving it, please feel free to open a [Pull Request on GitHub](#).

1.4.1 Introduction

What is Plan 9?

1.4.2 Support

What's the best way to get support?

1.4.3 Software Installation

How do I install new software?

1.4.4 System and software updates

How should I update Plan 9 to latest updates?

1.5 Providing feedback

1.6 Acknowledgments

Grateful acknowledgment is made to the following persons and organizations.

9p.io

1.7 References

Installation instructions. Installation instructions (Plan 9 wiki). (n.d.). Retrieved from https://9p.io/wiki/plan9/installation_instructions/.