

# Testing Phosh/BengalOS with openQA

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2026-05-24

# What is openQA?

- Framework that enables automatic testing of disk images
- uses isotovideo
- check for specific visual output (needles) and script user interaction (Python, Perl, Lua)
- Upstream documentation @ <https://open.qa/docs/>
- Debian openQA instance @ <https://openqa.debian.net>
- openSUSE openQA instance @ <https://openqa.opensuse.org>

# Setting up openQA

- `https://openqa.debian.net/documentation/local/install.html`
- Runs in a VM based on Debian 13, but needs backports+fasttrack
- Runs tests using nested virtualization
- Multiple backends (qemu), see `https://github.com/os-autoinst/os-autoinst/blob/master/doc/backend_vars.md` for configuration

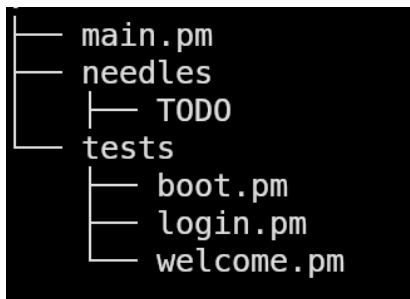
## Putting the disk image in the right location

```
$ ls /var/lib/openqa/factory/hdd
BengalOS_0.0.20260523.1.qcow2
disk_netinst-iso_64bit_bigmem-kde.qcow2
disk_netinst-iso_64bit_cinnamon.qcow2
disk_netinst-iso_64bit_lxqt.qcow2
disk_netinst-iso_64bit_xfce.qcow2
disk_netinst-iso_uefi_secure_bigmem-gnome.qcow2
disk_netinst-iso_uefi_secure_bigmem-gnome_text.qcow2
disk_netinst-iso_uefi_secure_bigmem-gnome_text-uefi-vars.qcow2
disk_netinst-iso_uefi_secure_bigmem-gnome-uefi-vars.qcow2
disk_netinst-iso_uefi_secure_bigmem-kde.qcow2
disk_netinst-iso_uefi_secure_bigmem-kde-uefi-vars.qcow2
disk_netinst-iso_uefi_secure_lxqt.qcow2
disk_netinst-iso_uefi_secure_xfce.qcow2
disk_netinst-iso_uefi_secure_xfce-uefi-vars.qcow2
```

- `https://github.com/os-autoinst/documentation`
- `workshops/2015/training.html`

# New tests?

- <https://github.com/os-autoinst/os-autoinst-distrib-example>



```
use autotest;  
  
autotest::loadtest 'tests/boot.pm';  
autotest::loadtest 'tests/welcome.pm';  
autotest::loadtest 'tests/login.pm';  
  
1;
```

```
use Mojo::Base 'basetest';
use TestAPI;

sub run {
    assert_screen 'plymouth';

    assert_screen 'welcome-screen';
}

1;
```

# Submitting a job

```
$ openqa-cli api -X POST jobs \  
  ISO= DISTRI=bengalOS VERSION=experimental \  
  FLAVOR=prebuilt ARCH=x86_64 BUILD=142 \  
  MACHINE=uefi XRES=720 YRES=1440 \  
  TEST=boot.pm,welcome.pm,login.pm \  
  HDD_1=BengalOS_0.0.20260523.1.qcow2
```

# How to write a test

- Use some needle in script, e.g. `assert_and_click 'phosh-tour-continue'` ;
- Run test and have it fail (because no needle yet)
- Needle editor in browser: Add needle that was not found
- Restart job
- Repeat until test suite is happy

# How to write tests in Perl for dummies

[

see ~/Pictures/Screenshots/]

use testapi;

- `assert_screen`, `assert_screen_and_click` 'needle'
- `mouse_drag`, `type_string`, `send_key`

# Test scenarios (new-ish?)

---

# example

products: {}

machines:

64bit:

backend: qemu

settings:

WORKER\_CLASS: qemu\_x86\_64

job\_templates:

create\_hdd:

machine: 64bit

settings:

PUBLISH\_HDD\_1: 'example-%VERSION%-%ARCH%-%BUILD%@%MACHINE

boot\_from\_hdd:

# Checking out existing tests

- `https://salsa.debian.org/qa/openqa/openqa-tests-debian.git`