
Chapter 2. Building and Installing QPDF

This chapter describes how to build and install qpdf. Please see also the *README.md* and *INSTALL* files in the source distribution.

2.1. System Requirements

The qpdf package has few external dependencies. In order to build qpdf, the following packages are required:

- zlib: <http://www.zlib.net/>
- jpeg: <http://www.ijg.org/files/> or <https://libjpeg-turbo.org/>
- gnu make 3.81 or newer: <http://www.gnu.org/software/make>
- perl version 5.8 or newer: <http://www.perl.org/>; required for **fix-qdf** and the test suite.
- GNU diffutils (any version): <http://www.gnu.org/software/diffutils/> is required to run the test suite. Note that this is the version of diff present on virtually all GNU/Linux systems. This is required because the test suite uses **diff -u**.
- A C++ compiler that works well with STL and has the `long long` type. Most modern C++ compilers should fit the bill fine. QPDF is tested with gcc, clang, and Microsoft Visual C++.

Part of qpdf's test suite does comparisons of the contents PDF files by converting them images and comparing the images. The image comparison tests are disabled by default. Those tests are not required for determining correctness of a qpdf build if you have not modified the code since the test suite also contains expected output files that are compared literally. The image comparison tests provide an extra check to make sure that any content transformations don't break the rendering of pages. Transformations that affect the content streams themselves are off by default and are only provided to help developers look into the contents of PDF files. If you are making deep changes to the library that cause changes in the contents of the files that qpdf generates, then you should enable the image comparison tests. Enable them by running **configure** with the **--enable-test-compare-images** flag. If you enable this, the following additional requirements are required by the test suite. Note that in no case are these items required to use qpdf.

- libtiff: <http://www.remotesensing.org/libtiff/>
- GhostScript version 8.60 or newer: <http://www.ghostscript.com>

If you do not enable this, then you do not need to have tiff and ghostscript.

Pre-built documentation is distributed with qpdf, so you should generally not need to rebuild the documentation. In order to build the documentation from its docbook sources, you need the docbook XML style sheets (<http://download.sourceforge.net/docbook/>). To build the PDF version of the documentation, you need Apache fop (<http://xml.apache.org/fop/>) version 0.94 or higher.

2.2. Build Instructions

Building qpdf on UNIX is generally just a matter of running

```
./configure
make
```