

- Bug fix: qpdf was not properly initializing Microsoft's secure crypto provider on fresh Windows installations that had not had any keys created yet.
- Fix a few errors found by Gynvael Coldwind and Mateusz Jurczyk of the Google Security Team. Please see the ChangeLog for details.
- Properly handle pages that have no contents at all. There were many cases in which qpdf handled this fine, but a few methods blindly obtained page contents with handling the possibility that there were no contents.
- Make qpdf more robust for a few more kinds of problems that may occur in invalid PDF files.

5.1.2: June 7, 2014

- Bug fix: linearizing files could create a corrupted output file under extremely unlikely file size circumstances. See ChangeLog for details. The odds of getting hit by this are very low, though one person did.
- Bug fix: qpdf would fail to write files that had streams with decode parameters referencing other streams.
- New example program: **pdf-split-pages**: efficiently split PDF files into individual pages. The example program does this more efficiently than using **qpdf --pages** to do it.
- Packaging fix: Visual C++ binaries did not support Windows XP. This has been rectified by updating the compilers used to generate the release binaries.

5.1.1: January 14, 2014

- Performance fix: copying foreign objects could be very slow with certain types of files. This was most likely to be visible during page splitting and was due to traversing the same objects multiple times in some cases.

5.1.0: December 17, 2013

- Added runtime option (*QUtil::setRandomDataProvider*) to supply your own random data provider. You can use this if you want to avoid using the OS-provided secure random number generation facility or stdlib's less secure version. See comments in include/qpdf/QUtil.hh for details.
- Fixed image comparison tests to not create 12-bit-per-pixel images since some versions of tiffcmp have bugs in comparing them in some cases. This increases the disk space required by the image comparison tests, which are off by default anyway.
- Introduce a number of small fixes for compilation on the latest clang in MacOS and the latest Visual C++ in Windows.
- Be able to handle broken files that end the xref table header with a space instead of a newline.

5.0.1: October 18, 2013

- Thanks to a detailed review by Florian Weimer and the Red Hat Product Security Team, this release includes a number of non-user-visible security hardening changes. Please see the ChangeLog file in the source distribution for the complete list.
- When available, operating system-specific secure random number generation is used for generating initialization vectors and other random values used during encryption or file creation. For the Windows build, this results in an added dependency on Microsoft's cryptography API. To disable the OS-specific cryptography and use the old version, pass the **--enable-insecure-random** option to **./configure**.
- The **qpdf** command-line tool now issues a warning when **-accessibility=n** is specified for newer encryption versions stating that the option is ignored. qpdf, per the spec, has always ignored this flag, but it previously