Also, if a file is heavily damaged, it may be possible to derive the encryption key and recover parts of the file using it directly. To expose the encryption key used by an encrypted file that you can open normally, use the **--show-encryption-key** option.

**--suppress-password-recovery**

Ordinarily, qpdf attempts to automatically compensate for passwords specified in the wrong character encoding. This option suppresses that behavior. Under normal conditions, there are no reasons to use this option. See Section 3.10, “Unicode Passwords”, page 20 for a discussion

**--password-mode=*mode***

This option can be used to fine-tune how qpdf interprets Unicode (non-ASCII) password strings passed on the command line. With the exception of the **hex-bytes** mode, these only apply to passwords provided when encrypting files. The **hex-bytes** mode also applies to passwords specified for reading files. For additional discussion of the supported password modes and when you might want to use them, see Section 3.10, “Unicode Passwords”, page 20. The following modes are supported:

- **auto**: Automatically determine whether the specified password is a properly encoded Unicode (UTF-8) string, and transcode it as required by the PDF spec based on the type encryption being applied. On Windows starting with version 8.4.0, and on almost all other modern platforms, incoming passwords will be properly encoded in UTF-8, so this is almost always what you want.

- **unicode**: Tells qpdf that the incoming password is UTF-8, overriding whatever its automatic detection determines. The only difference between this mode and **auto** is that qpdf will fail with an error message if the password is not valid UTF-8 instead of falling back to **bytes** mode with a warning.

- **bytes**: Interpret the password as a literal byte string. For non-Windows platforms, this is what versions of qpdf prior to 8.4.0 did. For Windows platforms, there is no way to specify strings of binary data on the command line directly, but you can use the **@filename** option to do it, in which case this option forces qpdf to respect the string of bytes as provided. This option will allow you to encrypt PDF files with passwords that will not be usable by other readers.

- **hex-bytes**: Interpret the password as a hex-encoded string. This provides a way to pass binary data as a password on all platforms including Windows. As with **bytes**, this option may allow creation of files that can't be opened by other readers. This mode affects qpdf's interpretation of passwords specified for decrypting files as well as for encrypting them. It makes it possible to specify strings that are encoded in some manner other than the system's default encoding.

**--rotate=[+|-]angle[:page-range]**

Apply rotation to specified pages. The **page-range** portion of the option value has the same format as page ranges in Section 3.5, “Page Selection Options”, page 10. If the page range is omitted, the rotation is applied to all pages. The **angle** portion of the parameter may be either 90, 180, or 270. If preceded by **+** or **-**, the angle is added to or subtracted from the specified pages' original rotations. Otherwise the pages' rotations are set to the exact value. For example, the command **qpdf in.pdf out.pdf --rotate=+90:2,4,6 --rotate=180:7-8** would rotate pages 2, 4, and 6 90 degrees clockwise from their original rotation and force the rotation of pages 7 through 9 to 180 degrees regardless of their original rotation, and the command **qpdf in.pdf out.pdf --rotate=180** would rotate all pages by 180 degrees.

**--keep-files-open=*[yn]***

This option controls whether qpdf keeps individual files open while merging. Prior to version 8.1.0, qpdf always kept all files open, but this meant that the number of files that could be merged was limited by the operating system's open file limit. Version 8.1.0 opened files as they were referenced and closed them after each read, but this caused a major performance impact. Version 8.2.0 optimized the performance but did so in a way that, for local