# Adapting FancyLibs & MinGW-Pkg from Debian 9 Stretch to 10 Buster, Mingw-7 to Mingw-8

## Introduction

About every 2 years Debian introduces a new release.

At the time I'm writing this Debian Buster is on it's way from Full Freeze to GA.

The following notes shall provide the order in which FancyLibs shall be adapted and released for a new Debian release or maybe an Ubuntu release.

## Adapting FancyLibs to new Debian Release

The steps per sub project are the same as described for "HelloWorld projects* in Adapting PBA to new Debian Release, with -o unix (before MinGW adaption) or -o "arch|unix|7" after MinGW adaption.

### FancyLibs subproject rebuild order phase 1

The recommended order for phase 1 (before MinGW adaptions) is:

| Project (subdir) | Archs (-o parameter) | Remarks general | Status & Remarks stretch/buster | Version with Buster |
|---|---|---|---|---|
| fancylog | arch\|8 | | OK.<br>in pba-rpmrelease, call to rpmsign can be reduced to:<br>rpmsign --addsign -v --key-id 9...7 -D "%__gpg /usr/bin/gpg" ../foobar-1.2.3-1.src.rpm | 1.0.3-5 |
| cute-headers | arch\|8 | Data only, could be done anytime | OK | 1.6.1-9 |
| fancylibs | arch | | OK. libstdc++-8-dev | 3.7.3-1 |
| fancydb | - | Unix only | OK | 0.6.5-7 |
| fancydrawing | arch | | OK | 0.6.2-3 |
| fancygpsdclient | unix | | OK | 0.4.3-5 |
| fancyhttpd | arch | | OK | 0.8.0-2 |
| fancylogd | unix | | OK | 0.1.0-3 |
| fancylogview | . | Debian unix & amd64 only | Half OK: Does not build for armhf, maybe never did, libqt4-dev seems incomplete for arm | 0.3.0.5 |
| fancypkcs11 | unix | Debian unix & amd64 only | Half OK: Does not build for armhf, maybe never did | 0.4.1-1 |
| fancypcsc | unix | Debian unix & amd64 only | Half OK: Does not build for armhf, maybe never did | 0.2.5-2 |
| fancymodbus | unix | | OK<br>Required minor adaption, with libmodbus-dev going from 3.0.6 to 3.1.4 | 0.2.4-3 |
| fancysax | arch | | OK | 0.6.1-7 |
| fancyqt4 | arch | | OK | 0.9.3-3 |
| fancyqt4widgets | arch | | OK | 0.5.2-2 |
| fancysane | unix | | OK, but libsane-dbg not available for buster. Reduced that to suggestion | 0.3.2-5 |
| fancyqmi | unix | Debian unix & amd64 only | Half OK: Does not build for armhf, maybe never did | 0.2.1-5 |
| fancyssl-tools | unix | | OK? | 0.4.0-5 |

Tests with released Buster on 2019-08-02 showed that all unix builds work for amd64, most work for armhf.

### MinGW-Pkg rebuilds

Stretch came with Mingw 7, Buster comes with Mingw 8, so we should rebuild that carefully, pulling up versions of libraries.

Order based on mingw 6 rebuild order

| Project (mingw-pkg subdir pattern) | Dep. | Version in mingw-pkg MinGW-7 Stretch | Version in mingw-pkg MinGW-8 Buster | Buster status |
|---|---|---|---|---|
| | | | | |

| (osslsigncode) | - | - | - | ignored |
|---|---|---|---|---|
| mingw-w64-binutils / binutils-mingw-w64 | | - (2.27.90.20161231-1+7.4) | - (2.31.1-11+8.3) | provided by Debian now |
| (mingw-w64-libmysql) | | - (6.1.11-1clazzespba1) | - (6.1.11-1clazzespba2) | obsolete since mingw-6, empty now |
| mingw-w64-libmariadb | | - | - | not required for now |
| mingw-w64-gcc-rt | | 6.3.0, uses Debian's g++-mingw64-* | 8.3.0 (-6+21.3~deb10u1), uses Debian's g++-mingw64-* | OK |
| mingw-w64-zlib | mingw-w64-gcc-rt | 1.2.11 | 1.2.11 | OK after rules changes: common-build-indep to build-indep, common-install-indep to install-indep |
| mingw-w64-openssl | mingw-w64-zlib | 1.1.0f-0 | 1.1.1c | OK |
| mingw-w64-libpng | mingw-w64-zlib | 1.6.31 | 1.6.37 | OK? libtool: link: x86_64-w64-mingw32-gcc -O2 -Wall -o .libs/pngfix.exe contrib /tools/pngfix.o ./.libs/libpng16.dll.a -lz -L/usr/x86_64-w64-mingw32/lib libtool: error: Could not determine the host path corresponding to libtool: error: '.../mingw-pkg/trunk/mingw-w64-deb/mingw-w64-libpng-1.6.37 /build/.libs' libtool: error: Continuing, but uninstalled executables may not work. ... |
| mingw-w64-libjpeg | mingw-w64-libpng | 9b | 9c | OK |
| mingw-w64-libtiff | mingw-w64-libjpeg | 4.0.8 | 4.0.10 | OK |
| mingw-w64-libmng | mingw-w64-libjpeg | 2.0.3-2 | 2.0.3-3 | OK |
| mingw-w64-bzip2 | mingw-w64-gcc-rt | 1.0.6-3 | 1.0.6-4 | OK |
| mingw-w64-libboost | mingw-w64-bzip2 | - | - | - (ignored) |
| mingw-w64-libiconv | mingw-w64-gcc-rt | 1.15-1 | 1.16-1 | OK |
| mingw-w64-libxml2 | mingw-w64-libiconv | 2.9.3-1 | 2.9.9-1 | OK |
| mingw-w64-gettext | mingw-w64-libxml2 | 0.19.8-1 | 0.20.1-1 | OK New patch `pthread_sigmask.m4`.patch based on this post. |
| mingw-w64-qt4-qmake | | 4.8.7-0clazzespba1 | 4.8.7-1clazzespba0 | OK Builldep change: `libstdc++-6-dev` to `libstdc++-6-dev` |
| mingw-w64-qt4 | mingw-w64-qt4-qmake, many of above | 4.8.7-0clazzespba3 | 4.8.7-1clazzespba0 | TBC ~ Building without SSL support since mingw-7. Needed these: dpkg --add-architecture i386 apt-get update apt-get install wine32 |
| mingw-w32-qt4-qmake | | 4.8.7-0clazzespba1 | 4.8.7-1clazzespba0 | Builldep change: `libstdc++-6-dev` to `libstdc++-6-dev` OK |
| mingw-w32-qt4 | mingw-w32-qt4-qmake, many of above | 4.8.7-0clazzespba3 | 4.8.7-1clazzespba0 | TODO Building without SSL support since mingw-7. |
| mingw-w64-jni-headers | | 1.6.0-4clazzespba5 | 1.6.0-4clazzespba6 | OK. Using headers from OpenJDK-11 now. Should we raise the version to 11? |

## TODO FancyLibs subproject rebuild order phase 3

The recommended order for phase 2 (before MinGW-8 adaptions) is:

| Project (subdir) | Archs (-o parameter) | Buster Status | Version with MinGW-8 package for Buster | Remarks, changes |
|---|---|---|---|---|

| fancylog | - (arch\|8) | OK | 1.0.3-7 | |
|---|---|---|---|---|
| cute-headers | - (arch\|8) | OK | 8_1.6.1-10 | |
| fancylibs | - (arch\|8) | OK | 3.7.3-2 | In debian-mingw-8/rules:<br># see https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=930492<br>w32pcdir = /usr/i686-w64-mingw32/lib/pkgconfig<br>w64pcdir = /usr/x86_64-w64-mingw32/lib/pkgconfig<br>...<br>common-build-indep::<br>  cd $(w32builddir) && $(MAKE) arch="i686-w64-mingw32" PKG_CONFIG_LIBDIR=$(w32pcdir)<br>  cd $(w64builddir) && $(MAKE) arch="x86_64-w64-mingw32" PKG_CONFIG_LIBDIR=$(w64pcdir) |
| fancydrawing | - (arch\|8) | OK | `0.6.2-5` | In debian-mingw-8/rules:<br># see https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=930492<br>w32pcdir = /usr/i686-w64-mingw32/lib/pkgconfig<br>w64pcdir = /usr/x86_64-w64-mingw32/lib/pkgconfig<br>...<br>common-build-indep::<br>  cd $(builddir) && PKG_CONFIG_LIBDIR=$(w64pcdir) $(MAKE) arch=$(arch)<br>  cd $(builddir32) && PKG_CONFIG_LIBDIR=$(w32pcdir) $(MAKE) arch=$(arch32) |
| fancygpsdclient | - (unix\|8) | OK | 0.4.3-7 | debian-mingw-8/rules adapted like above |
| fancyhttpd | - (arch\|8) | OK | 0.8.0-3 | debian-mingw-8/rules adapted like above |
| fancylogd | - (unix\|8) | OK | 0.1.0-6 | debian-mingw-8/rules adapted like above<br><br>Also had to add FANCYLOGD_COMMON_API in fancylogdVersion.cpp |
| fancylogview | - (nsis directory) | OK | 0.3.0.6 | Deferred, depends on QT |
| ~~fancypkcs11~~ | - (unix only) | - | - | Probably never build for MinGW, despite debian-mingw-?/ directories |
| fancypcsc | - (arch\|8) | OK | 0.2.5-4 | |
| ~~fancymodbus~~ | - (unix only) | - | - | |
| fancysax | - (arch\|8) | OK | 0.6.1-9 | debian-mingw-8/rules adapted like above |
| fancyqt4 | - (arch\|8) | OK | 0.9.3-5 | debian-mingw-8/rules adapted like above |
| fancyqt4widgets | - (arch\|8) | OK | 0.5.2-3 | debian-mingw-8/rules adapted like above |
| ~~fancysane~~ | - (unix only) | - | - | |
| ~~fancyqmi~~ | - (unix only) | - | - | |
| fancyssl-tools | - (arch\|8) | OK | 0.4.0-6 | debian-mingw-8/rules adapted like above |

## Obsolete subdirs

| Project (subdir) | Remarks |
|---|---|
| base64 | never even built for stretch |
| gpsfake-runner | shell scripts only |
| jnix | never even built for stretch |
| fancyxmlsock | Looks lke old experimental code now in fancysock |