BUILDING Debian Packages

1) run gounpack script
2) edit files in bsu-3.0.1/debian if/as needed (see below).
3) run gobuild script
      OR
   dpkg-buildpackage command for binary only (see below)

Debian 9 uses gnuplot5, so that has been changed to the default configure option.

EDIT TIPS
In directory **bsu-3.0.1/debian** are following files and child directories:

copyright
control
compat
changelog
README.Debian
rules
source
debhelper-build-stamp
bsu
bsu.substvars
bsu.debhelper.log

The **rules file** can be edited for building alternative BINARY *.deb binary packages. For example, uncomment the line:

```
#     dh_auto_configure -- --with-plplotlib
```

and you will build the plplot version.

REMEMBER this is a makefile, uses tab
  If you use one of these, *only build binary package* with -b option
For Example:

```
  dpkg-buildpackage -b -uc -us
```

The gobuild script is basically a dpkg-buildpackage command issued from in directory bsu-3.0.1

ALSO!! Edit the **bsu-3.0.1/debian/control** file to give the package a new name.

NOTE!!! Do not run the gobuild script, just issue the dpkg-buildpackage command if you are building anything edited in the rules file.

```
        EXAMPLE BUILDING A PLPLOT BINARY *.deb package on debian 9
=====================================================================
                  Listing edited bsu-3.0.1/debian/rules file:
#!/usr/bin/make -f
# See debhelper(7) (uncomment to enable)
# output every command that modifies files on the build system.
#DH_VERBOSE = 1

# see EXAMPLES in dpkg-buildflags(1) and read /usr/share/dpkg/*
DPKG_EXPORT_BUILDFLAGS = 1
include /usr/share/dpkg/default.mk

# see FEATURE AREAS in dpkg-buildflags(1)
#export DEB_BUILD_MAINT_OPTIONS = hardening=+all

# see ENVIRONMENT in dpkg-buildflags(1)
# package maintainers to append CFLAGS
#export DEB_CFLAGS_MAINT_APPEND  = -Wall -pedantic
# package maintainers to append LDFLAGS
#export DEB_LDFLAGS_MAINT_APPEND = -Wl,--as-needed


# main packaging script based on dh7 syntax
%:
      dh $@  --with autotools-dev

#override_dh_auto_configure:  REMEMBER this is a makefile, uses tab
#   If you use one of these, only build binary package with -b option
#   dpkg-buildpackage -b -uc -us
#
      dh_auto_configure -- --with-plplotlib
#            OR
#     dh_auto_configure -- --with-plplotlib --with-plplot-old
#            OR
#     dh_auto_configure -- --enable-all-static
#            OR
#     dh_auto_configure -- --with-gnuplot4 --with-plplotlib
#            OR
#     dh_auto_configure -- --with-gnuplot4
#
# debmake generated override targets
# This is example for Cmake (See http://bugs.debian.org/641051 )
#     dh_auto_configure -- \
#     -DCMAKE_LIBRARY_PATH=$(DEB_HOST_MULTIARCH)
```

```
=======================================================================
                    Listing bsu-3.0.1/debian/control file:
Source: bsu
Section: science
Priority: optional
Maintainer: pm <Paul Michaels <paulmichaels@boisestate.edu>>
Build-Depends: debhelper (>= 9), autotools-dev
Standards-Version: 3.9.5
Homepage: https://earth.boisestate.edu/people/paul-michaels/
#Vcs-Git: git://anonscm.debian.org/collab-maint/bsu.git
#Vcs-Browser: http://anonscm.debian.org/?p=collab-maint/bsu.git;a=summary


Package: bsu+plplot
Architecture: any
Depends: ${shlibs:Depends}, ${misc:Depends}
Description: Seismic data processing utilities and libraries
 Basic Seismic Utilities (BSU) is a collection of seismic data processing
 programs written in both C and Fortran languages.  Some of the programs require
 PLPLOT or the GNU Scientific Libraries (GSL).  The data format is based on the
 original segy seismic data exchange format published by the Society of
 Exploration Geophysicists (SEG).
 . New programs have been added, some bugs fixed, and additional Octave
 programs included for surface wave analysis.
 .
 The data format has been adapted to disk from tape.  It is very similar to the
 format used by the Seismic Unix (SU) package.  While SU is focused on
 reflection seismic processing and vertical component data, BSU headers have
 components to describe down-hole and multicomponent recordings.  Both source
 and receiver orientation is described in BSU headers.  A byte order swap program
 is included to address XDR formats.  The SEGY conversion program has been
improved
 to export big endian IBM floating points from little endian native IEEE float
format.
 Alternative Home Page: http://cgiss.boisestate.edu/~pm
=======================================================================
```