This document contains a set of instructions for building cnvgrib. Download 1.2.34 or later version libpng and 1.2.3 zlib from http://sourceforge.net/project/showfiles.php?group_id=5624 and Jasper 1.900.1. from http://www.nco.ncep.noaa.gov/pmb/codes/GRIB2/

Compile the zlib, jasper, libpng libraries. In the following build instructions, you can substitute "/nwprod" for your circumstance. For instance, if you have no authority to write anywhere except in your $HOME, replace all "/nwprod" below with "$HOME". Administrators will probably use "/usr" and developers will most likely use "/usr/local" if they have write permissions to "/usr/local". Linux administrators will use RPMs and most likely install zlib and libpng from the RPMs. That ensures that all dependencies are kept intact.

Zlib: see http://sourceforge.net/project/showfiles.php?group_id=5624
./configure –prefix=/nwprod
vi +36 makefile
add "ruv" after ar
exit vi
make
make install

Libpng: see http://sourceforge.net/project/showfiles.php?group_id=5624
./configure –prefix=/nwprod
make
make install

Jasper: see http://www.nco.ncep.noaa.gov/pmb/codes/GRIB2/
LDFLAGS="-L/nwprod -lpng -lz"
export LDFLAGS
./configure --prefix=/nwprod
make
make install

If you have trouble, then "unset CFLAGS" and repeat. If you still have problems, run autoconf before running configure and make. If you still have problems, remove the three directories, unset CFLAGS and LDFLAGS, run autoconf, configure, and make.

If you still have problems send NCEP.NCO.GRIB@noaa.gov all the output from the builds.

Download the g2lib tar file from http://www.nco.ncep.noaa.gov/pmb/codes/GRIB2/ and put it under /pub/share/ncoops and build it.

vi +19 makefile
Change the line to read
INCDIR=-I/nwprod/include
Go to line 36 and edit to specify your platform, see line 6 for options
Go to line 37 and change the compiler to your FORTRAN 90/95 compiler
Go to line 38 and change cc to your C complier, HP users use gcc if available
For 64 bit compilers, set CFLAGS=-O3 $(DEFS) $(INCDIR) –D__64BIT__

Copy the resulting g2lib.a /nwprod/lib

Download w3lib tar file from http://www.nco.ncep.noaa.gov/pmb/codes/GRIB2/ and build it.
vi +21 Makefile, edit the line for your FORTRAN 90/95 compiler
Edit line 23, for your definition based on line 5, Cygwin users use -DLINUX
Edit line 24 for your C compiler, HP use gcc is available
Edit line 25, ARFLAGS = ruv if not already set in your environment
Edit line 66, remove "-ruv"
make
cp libw3.a /nwprod/lib

Download cnvgrib tar file from http://www.nco.ncep.noaa.gov/pmb/codes/GRIB2/ and build it.
vi +16 makefile, change compiler to the FORTRAN 90/95 compiler
Edit LDFLAGS =
Edit LIBS = -L/nwprod/lib –lg2 –lw3 -ljasper -lpng –lz
HP users add –lX11
Edit INC = -I . -I/nwprod/include -I../g2lib-1.2.1
cp cnvgrib /nwprod/exec

Users who do not have a /nwprod structure will copy cnvgrib to a directory in their path. Cygwin users will copy cnvgrib.exe to some directory in their $PATH.

Send NCEP.NCO.GRIB@noaa.gov all the output from the build if you are still having problems. If you are handy with makefiles, you can edit them to look for the libraries in other directories. This is especially important if you do not have root permissions to create directories

If you are handy with debugging, compile with the "-g" option and step through the application using a debugger.

Your compiler may need special options. For example, for 64 bit operation the pgi compiler www.csc.fi/english/csc/courses/pgi_compilers requires the "-tp core2-64" option.