

Makefile Project

What's the aim?

The goal is to provide a common Makefile for the CHS department.

What you have to do?

You have to checkout the *Makefile* and the directory *make.config*.

Open the file *Makefile* and make the proper settings for your source code (select compiler, IMSL, MKL, LAPACK, etc.).

Now, you just have to type *make* on the command line (in the directory of your source code) and the executable will be compiled.

Makefile Header

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#
# PURPOSE
#   Makefile for CHS projects
#
# CALLING SEQUENCE
#   make [options] [VARIABLE=VARIABLE ...] [targets]
#
#   Variables can be set on the command line [VAR=VAR] or in the SWITCHES section in this file.
#
# INPUTS
#   targets    all (default), check (=test), clean, cleanclean, cleantest
#
# OPTIONS
#   All make options such as -f makefile. See 'man make'.
#
# VARIABLES
#   All variables defined in this makefile.
#   This makefile has lots of conditional statements depending on variables.
#   If the variable functions as a switch then the condition checks for variable = true,
#   otherwise the variable can have different values.
#   See individual variables in SWITCHES section below.
#
#   Variables can be empty for disabling a certain behaviour,
#   e.g. if you do not want to use IMSL, set: imsl=no or imsl=
#
#   Current variables are
#       system    eve, mcimac, mcpowerbook, mcair
#       release   debug, release
#       netcdf    netcdf3, netcdf4
#       static    static, shared, dynamic (last two are equal)
#       proj      true, [anything else]
#       imsl      vendor, imsl, [anything else]
#       mkl       mkl, mkl95, [anything else]
#       lapack    true, [anything else]
#       compiler  intel11, intel12, gnu41, gnu42, gnu44, gnu45, gnu46, absoft, nag51, nag52, nag53, sun1
#
#       alternative names are:
#       On eve.ufz.de
#       gnu, gfortran, gcc=gnu44
#       gfortran41, gcc41=gnu41
#       gfortran44, gcc44=gnu44
#       gfortran45, gcc45=gnu45
#       gfortran46, gcc46=gnu46
#       intel, ifort, ifort11=intel11
#       ifort12=intel12
```

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#       sun=sun12
#       nag=nag53
#       On Matthias' Macbook Air
#       gnu, gfortran, gcc, gfortran46, gcc44=gnu46
#       On Matthias' iMac
#       gnu, gfortran, gcc, gfortran45, gcc44=gnu45
#       intel, ifort, ifort12=intel12
#       nag=nag52 nag53
#       On Matthias' Powerbook
#       gnu, gfortran, gcc, gfortran42, gcc42=gnu42 for mcpowerbook
#       nag=nag52 nag53
#       openmp    true, [anything else]
#
# DEPENDENCIES
#   This make file uses the following files:
#       $(MAKEDPATH)/make.d.pl, $(CONFIGPATH)/$(system).$(compiler)
#
# RESTRICTIONS
#   Not all packages work with or are compiled for all compilers.
#   The script does check some but not all of these dependencies.
#
# EXAMPLE
#   make release=debug compiler=intel11 imsl=imsl mkl=mkl95
#
# LITERATURE
#   The following links provide documentation:
#       Make
#       GNU      http://www.gnu.org/s/make/
#       Compiler
#       GFORTRAN http://gcc.gnu.org/fortran/
#       INTEL    http://software.intel.com/en-us/articles/intel-composer-xe/
#       NAG      http://www.nag.co.uk/nagware/np.asp
#               http://www.nag.co.uk/nagware/np/doc\_index.asp
#       ABSOFT   http://www.absoft.com/Support/Documentation/fortran\_documentation.html
#       Libraries
#       MKL      http://software.intel.com/en-us/articles/intel-mkl/
#       IMSL     http://www.roguewave.com/products/imsl-numerical-libraries.aspx
#       NETCDF   http://www.unidata.ucar.edu/software/netcdf/
#       PROJ4    http://trac.osgeo.org/proj/
#       LAPACK   http://www.netlib.org/lapack/
#
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