

Compile MYSTRAN (10.31) with gfortran and cmake under Windows 10

by ceanwang@gmail.com

Ver 0.2 (2020/06/20)

Pre-requests

You need gfortran, cmake, MYSTRAN source code and cmake script by Cean Wang.

gfortran from

<http://www.equation.com/servlet/equation.cmd?fa=fortran>

cmake from

<https://cmake.org/download/>

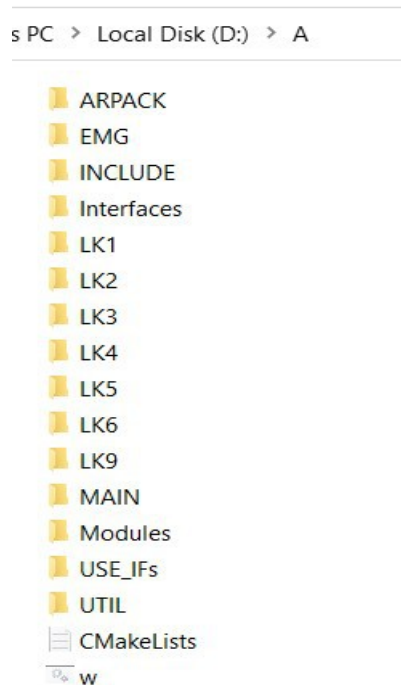
MYSTRAN from

<https://www.mystran.com/misc/A.zip>

CmakeLists.txt and w.bat by Cean Wang

Compile Step

1. Unzip MYSTRAN source code A.zip to [d:/a](#)



2. Copy CmakeLists.txt and w.bat under [D:/A](#) folder
3. Start Window command prompt (DOS terminal), change to [D:/A](#) folder

```
Command Prompt
Microsoft Windows [Version 10.0.18363.900]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\ian>d:

D:\>cd\A

D:\A>
```

4 Type w in command line, then press enter to configure compile tools

If no error during configure, it will create a build_win10 sub folder under [D:/A](#) with makefile in it. And the current folder changed to [D:/A/build_win10](#) in DOS terminal.

```
FreeCommander - DOS
Microsoft Windows [Version 10.0.18363.900]
(c) 2019 Microsoft Corporation. All rights reserved.

D:\A>w
-- The Fortran compiler identification is GNU 9.2.0
-- Check for working Fortran compiler: D:/Prg/gcc/bin/gfortran.exe
-- Check for working Fortran compiler: D:/Prg/gcc/bin/gfortran.exe -- works
-- Detecting Fortran compiler ABI info
-- Detecting Fortran compiler ABI info - done
-- Checking whether D:/Prg/gcc/bin/gfortran.exe supports Fortran 90
-- Checking whether D:/Prg/gcc/bin/gfortran.exe supports Fortran 90 -- yes
-- The C compiler identification is GNU 9.2.0
-- The CXX compiler identification is GNU 9.2.0
-- Check for working C compiler: D:/Prg/gcc/bin/gcc.exe
-- Check for working C compiler: D:/Prg/gcc/bin/gcc.exe -- works
-- Detecting C compiler ABI info
-- Detecting C compiler ABI info - done
-- Detecting C compile features
-- Detecting C compile features - done
-- Check for working CXX compiler: D:/Prg/gcc/bin/c++.exe
-- Check for working CXX compiler: D:/Prg/gcc/bin/c++.exe -- works
-- Detecting CXX compiler ABI info
-- Detecting CXX compiler ABI info - done
-- Detecting CXX compile features
-- Detecting CXX compile features - done
-- Configuring done
-- Generating done
-- Build files have been written to: D:/A/build_win10

D:\A\build_win10>
```

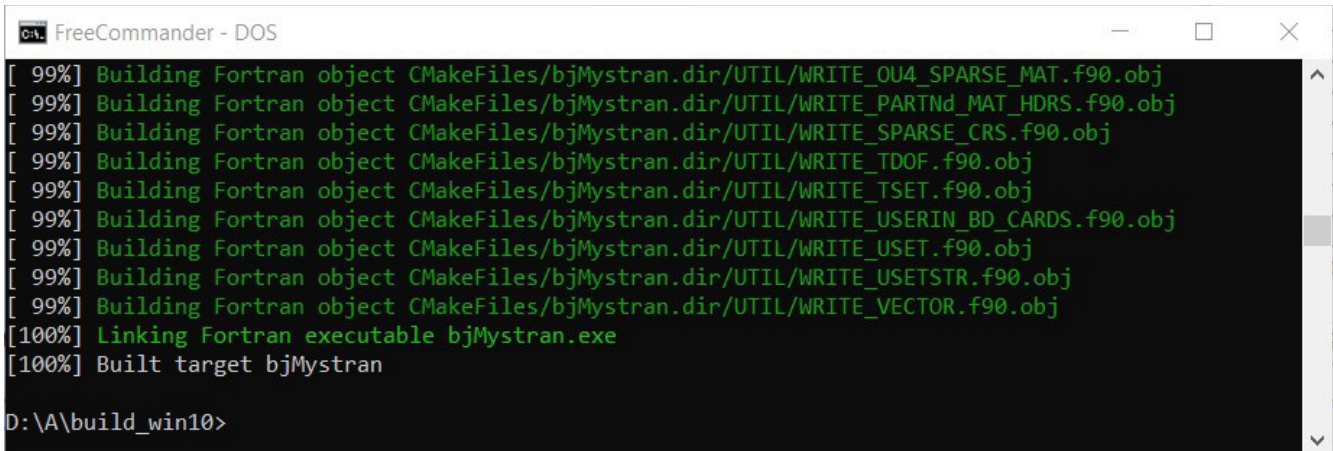
5 Type make in command line, then press enter to compile

```

D:\A\build_win10>make
Scanning dependencies of target bjMOD
[ 0%] Building Fortran object CMakeFiles/bjMOD.dir/Modules/PENTIUM_II_KIND.f90.obj
[ 0%] Building Fortran object CMakeFiles/bjMOD.dir/Modules/CONSTANTS_1.f90.obj
[ 0%] Building Fortran object CMakeFiles/bjMOD.dir/Modules/ALLOCATED_ARRAY_DATA.f90.obj
[ 0%] Building Fortran object CMakeFiles/bjMOD.dir/Modules/DEBUG_PARAMETERS.f90.obj
[ 0%] Building Fortran object CMakeFiles/bjMOD.dir/Modules/SCONTR.f90.obj
[ 0%] Building Fortran object CMakeFiles/bjMOD.dir/Modules/IOUNT1.f90.obj
[ 1%] Building Fortran object CMakeFiles/bjMOD.dir/Modules/PARAMS.f90.obj
[ 1%] Building Fortran object CMakeFiles/bjMOD.dir/Interfaces/ALLOCATED_MEMORY_Interface.f90.obj

```

After a while, if no error, a bjMystran.exe will be created under [D:/A/build_win10](#) folder.



```

FreeCommander - DOS
[ 99%] Building Fortran object CMakeFiles/bjMystran.dir/UTIL/WRITE_OU4_SPARSE_MAT.f90.obj
[ 99%] Building Fortran object CMakeFiles/bjMystran.dir/UTIL/WRITE_PARTNd_MAT_HDRS.f90.obj
[ 99%] Building Fortran object CMakeFiles/bjMystran.dir/UTIL/WRITE_SPARSE_CRS.f90.obj
[ 99%] Building Fortran object CMakeFiles/bjMystran.dir/UTIL/WRITE_TDOF.f90.obj
[ 99%] Building Fortran object CMakeFiles/bjMystran.dir/UTIL/WRITE_TSET.f90.obj
[ 99%] Building Fortran object CMakeFiles/bjMystran.dir/UTIL/WRITE_USERIN_BD_CARDS.f90.obj
[ 99%] Building Fortran object CMakeFiles/bjMystran.dir/UTIL/WRITE_USET.f90.obj
[ 99%] Building Fortran object CMakeFiles/bjMystran.dir/UTIL/WRITE_USETSTR.f90.obj
[ 99%] Building Fortran object CMakeFiles/bjMystran.dir/UTIL/WRITE_VECTOR.f90.obj
[100%] Linking Fortran executable bjMystran.exe
[100%] Built target bjMystran

D:\A\build_win10>

```

6 If there is any error, edit the source code. When done, run **make** again to re-compile.

7 If you are happy with the result, Rename bjMystran.exe to Mystran.exe and copy it to where you want it stored.

It is suggested to install Free Commander program. It is like File Explore, but can browse to folder and start DOS terminal in that folder directly.



Build with gfortran 8.1 bundled within CodeBlocks

Download CodeBlocks from

<http://www.codeblocks.org/downloads/26>

On the website,



Windows XP / Vista / 7 / 8.x / 10:

File	Date	Download from
codeblocks-20.03-setup.exe	29 Mar 2020	FossHUB or Sourceforge.net
codeblocks-20.03-setup-nonadmin.exe	29 Mar 2020	FossHUB or Sourceforge.net
codeblocks-20.03-nosetup.zip	29 Mar 2020	FossHUB or Sourceforge.net
codeblocks-20.03mingw-setup.exe	29 Mar 2020	FossHUB or Sourceforge.net

Download codeblocks-20.03mingw-setup.exe, this file includes the GCC/G++/GFortran copiler and GDB debugger from MinGW-W64 project (version 8.1.0, 32/63 bit, SEH)

After install CodeBlocks, browse to D:\Program Files\CodeBlocks\MinGW\bin, make a copy of mingw32-make.exe

Rename that copy to make.exe. Otherwise cmake will not find make.exe

Add D:\Program Files\CodeBlocks\MinGW\bin into Windows PATH

Then run w.bat and make to compile the source.