

DYRESM-CAEDYM

Installation instructions: Source code

Platform: PC (WIN32)

For the purpose of this document only the following assumptions are made:

- Digital Visual FORTRAN 6.0 (or later) is installed on your PC
- your hard drive is c:\
- the CD ROM drive is d:\

If your PC has another FORTRAN compiler, the details of the instructions below will not be relevant. However, the general work flow required to build the executable from the source code should be the same.

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 Please read the following instructions in toto before executing them.
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1. Create directory structure

The following directory structure must be created on your PC.

- c:\dycd\vfproj
- c:\dycd\include
- c:\dycd\bin
- c:\dycd\lib
- c:\dycd\src\libcwrcommon
- c:\dycd\src\dyresm
- c:\dycd\src\caedym

2. Copy files from CD onto PC

- copy d:\cwrsoft\include*. * to c:\dycd\include\
- copy d:\cwrsoft\bin*. * to c:\dycd\bin\
- copy d:\cwrsoft\lib\libcwrcommon.lib to c:\dycd\lib\
- copy d:\cwrsoft\lib\netcdf.lib to c:\dycd\lib\
- copy d:\cwrsoft\lib\src*. * to c:\dycd\src\libcwrcommon\
- copy d:\cwrsoft\models\dyresm\src*. * to c:\dycd\src\dyresm\
- copy d:\cwrsoft\models\caedym\src*. * to c:\dycd\src\caedym\

3. Set up default include and library directories in Visual Fortran 6.0

Start Visual Fortran 6.0:

- START -> PROGRAMS -> VISUAL FORTRAN 6 -> DEVELOPER STUDIO
- Set up include and library directories
- TOOLS -> OPTIONS...

Click Directories tab

Choose Include files in Show directories for:

Click in dotted box in Directories:

Type in location of include directory: c:\dycd\include

Choose Library files in Show directories for:

Click in dotted box in Directories:

Type in location of include directory: c:\dycd\lib

Click OK

4. Create CWR common library libcwrcommon.lib

The library libcwrcommon.lib is required to build dycd.exe, so it must be compiled first and put into the library directory c:\dycd\lib\

A) Create a new project:

FILE -> NEW...

Click Projects tab

Choose Fortran Static Library

Enter in the following fields:

Project name: libcwrcommon

Location: c:\dycd\vfproj\libcwrcommon

Click OK

(Click FINISH if Visual Fortran asks if you want to create headers)

Click OK

B) Add required source code as follows:

PROJECT -> ADD TO PROJECT -> FILES...

Files of type: Fortran Source Files (*.f90 etc)

Look in: c:\dycd\src\libcwrcommon

Select all the FORTRAN files

Click OK

C) Update the dependencies:

BUILD -> UPDATE ALL DEPENDENCIES...

Choose appropriate Project configuration ('debug' is fine)

Click OK

Some warnings may be reported ('could not find'-type warnings). If so then repeat step C), which should remove the warnings. If the warnings are still present then the include and/or library directories set up in section 3 either have been named incorrectly, or don't contain the .lib files as required to compile.

D) Build the object library:

BUILD -> BUILD LIBCWRCOMMON.LIB

If errors are reported then the source files added to the project may be wrong. To retry the build first do a clean which removes all the junk created in the last attempt to build:

BUILD -> CLEAN

Now you can re-build.

E) Copy or move all the ".mod" files from

c:\dycd\vfproj\libcwrcommon\Debug

to

c:\dycd\include

and also copy or move libcwrcommon.lib from the \Debug directory to c:\dycd\lib

5. Create CAEDYM object library caedym.lib

The library caedym.lib is required to build dycd.exe, so it must be compiled first and put into the library directory c:\dycd\lib\

A) Create a new project:

FILE -> NEW...

Click Projects tab

Choose Fortran Static Library

Enter in the following fields:

Project name: caedym
Location: c:\dycd\vfproj\caedym

Click OK
(Click FINISH if Visual Fortran asks if you want to create headers)
Click OK

B) Add required source code as follows:

PROJECT -> ADD TO PROJECT -> FILES...
Files of type: Fortran Source Files (*.f90 etc)
Look in: c:\dycd\src\caedym
Select all the FORTRAN files
Click OK

C) Update the dependencies:

BUILD -> UPDATE ALL DEPENDENCIES...
Choose appropriate Project configuration ('debug' is fine)
Click OK

Some warnings may be reported ('could not find'-type warnings). If so then repeat step C), which should remove the warnings. If the warnings are still present then the include and/or library directories set up in section 3 either have been named incorrectly, or don't contain the .lib files as required to compile.

D) Build the object library:

BUILD -> BUILD CAEDYM.LIB

If errors are reported then the source files added to the project may be wrong. To retry the build first do a clean which removes all the junk created in the last attempt to build:

BUILD -> CLEAN

Now you can re-build.

E) Copy or move all the ".mod" files from

c:\dycd\vfproj\caedym\Debug
to
c:\dycd\include

and also copy or move caedym.lib from the \Debug directory to c:\dycd\lib

6. Create DYRESM-CAEDYM executable

Repeat Section 5A except choose *Fortran Console Application* instead of *Fortran Static Library*. (If a Fortran Console Application panel pops up then select Empty, then Finish followed by OK.)

Now we need to link the required libraries:

PROJECT -> SETTINGS...
Click Link tab
Type in the following file names on the end of the list in Object/library modules:
libcwrcommon.lib caedym.lib netcdf.lib

B) Add required source code as follows:

PROJECT -> ADD TO PROJECT -> FILES...
Files of type: Fortran Source Files (*.f90 etc)
Look in: c:\dycd\src\dyresm
Select all the FORTRAN files
Click OK

PROJECT -> ADD TO PROJECT -> FILES...
Files of type: Object Files (*.obj etc)

Look in: c:\dycd\src\dyresm

Select the object files

Click OK

C) Update the dependencies:

BUILD -> UPDATE ALL DEPENDENCIES...

Choose appropriate Project configuration ('debug' is fine)

Click OK

Some warnings may be reported ('could not find'-type warnings). If so then repeat step C), which should remove the warnings. If the warnings are still present then the include and/or library directories set up in section 3 either have been named incorrectly, or don't contain the .lib files as required to compile.

D) Build the executable:

BUILD -> BUILD dycd.exe

If errors are reported then the source files added to the project may be wrong. To retry the build first do a clean which removes all the junk created in the last attempt to build:

BUILD -> CLEAN

Now you can re-build.

The dycd.exe which results is located in c:\dycd\vfproj\dycd\Debug

This should be copied or moved to the executable directory c:\cwrsoft\bin (or any valid Windows path).

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date: 16 October 2000
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