Compiling Cactus in Windows on Visual Fortran

Necessary files

* Download and unzip [CACTUS Modeling Software](http://energy.sandia.gov/wp/wp-content/gallery/uploads/CACTUS_V1_1.tar.gz) source code from <http://energy.sandia.gov/?page_id=16734>
* Download and unzip [LAPACK 3.1.1 (Reference BLAS included)](LAPACK%203.1.1%20(Reference%20BLAS%20included)) from <http://icl.cs.utk.edu/lapack-for-windows/VisualStudio_install.html>

Compiling Cactus in visual studio:

In Visual Studio:

* From the top menu: File -> New… -> Project
  + Intel Visual Fortran -> Console Application -> Empty project
    - Name it Cactus and click OK

A new project will be created with three folders: “Header Files”, “Resource Files”, and “Source Files”

* In the drop down at the top change “Debug” to “release”
* From the top menu: Project -> Properties
  + Configuration Properties -> Fortran -> Data
    - Set the value of “Default Real Kind” to “8 (/real\_size:64)”
  + Configuration Properties -> Linker -> General
    - Set the value of “Additional Library Directories” to “...\LAPACK 3.1.1 for Windows\lib\win32\” (the location of the LAPACK downloaded libraries)
  + Configuration Properties -> Linker -> Input
    - set “Additional Dependencies” to “LAPACK.lib BLAS.lib extras.lib MATGEN.lib”
  + Click OK
* From the top menu: Tools -> Options
  + Intel Composer XE -> Visual Fortran -> General
    - Set value of “sources” to “.f90;.f95” (to make visual studio recognize .f95 files as Fortran)
* From the Cactus download, drag every “.f95” file from “.\CACTUS\Rel1\_1\src\” “.\CACTUS\Rel1\_1\mod\” and “.\CACTUS\Rel1\_1\mod\util\” to the “Source Files” folder of the project
* From the top menu: Build –> Build Solution
* Wait

The executable will be in your project directory.  
For example …\Visual Studio 2010\Projects\Cactus\Cactus\Release\Cactus.exe