

A&OS C115/C228 – DTDM for Windows

Spring, 2007 – Fovell

Running DTDM on Windows requires the DTDM package (with `dtm.exe`), the PC version of GrADS (PCGrADS), and – optionally – the g95 compiler. It also requires the Command Prompt program (Start > Accessories > Command Prompt), which should already be installed. The new software you need may be obtained from

<http://www.atmos.ucla.edu/~fovell/DTDM/DTDM.zip>
<http://www.iges.org/grads/downloads.html>
<http://ftp.g95.org>

DTDM.zip contains a Windows executable, `dtm.exe`. I do not use Windows often, so this procedure may not be the optimal. Feedback appreciated. This is being tested on Windows XP, not Vista.

Procedure:

- *Optional* – only if you want or need to compile DTDM for yourself. You do not need g95 to run my executable `dtm.exe`. From ftp.g95.org, download the `g95-MinGW.exe` version. When you execute this program, it unpacks the g95 compiler, and installs it onto your Desktop, in the `g95` folder. It also modifies system files to update your path, so you can recognize g95 from the command prompt.
- From <http://www.iges.org/grads/downloads.html>, download the `win32e` version, which uses “native windows” and does not require an X server. When you execute this program, it creates Program Files > PCGrADS.
- Access Control Panel > System > Advanced > Environment Variables. If `PATH` does not exist, create it, and type in `C:\Program Files\PCGrADS\win32e`. If it does exist, append the preceding after a “;”.
- Download `DTDM.zip`. Double click to uncompress. A folder called `DTDM` is created. Mine appears on the Desktop. Open a new Command Prompt and `cd Desktop/DTDM`. Edit your `input_thermal.txt` script in your favorite text editor.
- In the Command Prompt window, now type `dtm.exe < input_thermal.txt`. Some output will be written to the screen. For the example simulation, the files `thermal.anelastic.dat` and `thermal.anelasticctl` should be created. (Don’t double-click `dtm.exe`; it requires input.)
- Time to start up GrADS. This can be done from the command line. Typing something like `set DISPLAY=1024x768x16M` prior to executing GrADS may give you a better graphics experience. Type `grads.exe`. A new window should open. Answer the question regarding landscape or portrait mode. When the `ga->` prompt appears, type

```
open thermal.anelastic
```
- Optional: If you want to recompile DTDM, and installed g95, do this from the Command Prompt, starting in the `DTDM` directory:
 - `cd src`
 - `g95 -O3 -o ../dtm.exe DTDM_model.f blktri.f`
 - `cd ..`