Installation of OpenCalphad on Linux or macOS

Bo Sundman, August 19, 2018

There is no automatic installation routine for OC, you must download and compile the software yourself. You may also have to install Fortran compilers and the GNUPLOT software if you do not already have them. The OC development team cannot offer you any help for that, please ask some local experts if you need help.

The description below applies when installing OC on a "vanilla" Linux system, the guides available are:

- Install-OC-Windows
- Installation de OC sous Windows avec Cygwin (in French)
- Install-OC-Linux-or-macOS

Step by step installation:

- The code is written in the new Fortran standard and requires a compiler like GNU Fortran 4.8 or similar.
- Normally you have the GNU Fortran compiler in your linux system otherwise you can get the GNU Fortran suite free from https://SourgeForge.net or some similar site. If you have Intel or another Fortran compiler you must be sure it is compatible with GNU Fortran 4.8 or later.
- open a terminal window and use "cd" (change directory) to the directory where you unzipped OC.
- If you want to use the command line editing features (a la emacs) inside OC you must first edit the Makefile and remove the comment character "#" for your dialet of UNIX (BSD (also Mac)), Linux, etc.

  Then give the command "make Makefile" to build your version of OpenCalphad

  If you do not want the line editing you can use " make -f Makefile-nogetkey"
- **If you have errors running the make command files please contact a local expert.**
- From version 5.018 OC has a popup window to open files. This is provided with the "tinyfd" software included in the distribution. If you do not like the popup windows you can remove this from the Makefiles or inside OC give the command "set advanced popup yes".

- For the graphics you must download and install the free GNUPLOT software, for example from SourceForge.

  Make sure your PATH includes the directory with the GNUPLOT program. If you do not know how to set your PATH ask a local expert.

- Creating a home directory for OC

  - Create a directory called OCHOME, usually at your home directory "mkdir OCHOME"
  - Copy the file ochelp.hlp to this directory
  - Create an environment variable called OCHOME with the path to your OCHOME directory. If you do not know how create an environment variable please ask a local expert.
  - Later you may also add a macro file called "start.OCM" that you want to run every time you start OC on this directory. You can also create a subdirectory called "databases" that you can search when you give the command "read tdb" in OC if you prefix the file name by "ocbase/"

- Look in "after-installation" for help using OC.

You are welcome to help providing a better installation guide also!

Have fun and help make OC useful!