User guide for the DPG Energetics library

Installation

- 1. First, use the makefile in the DPG directory to build the DPG library
- 2. Then, use the Makefile in the DPGGB directory to build the energetics computation program.
- Additional note for the parallel version
 - o Download and install cilk++
 - o Set the path to the cilk directory inside the Makefiles
 - o Carry out the steps 1-2 mentioned above.

Usage with TexMol

Execute-

TestFastGB ".pqr File" ".quad File" "outputFile"

- Note about the inputs
 - o One can use PDB2PQR to generate the .pqr file from a .pdb file
 - o .quad files can be generated using either the MolSurf or the TexMol package
- Output is a text file containing
 - o The born radii of the atoms
- Also prints the following on the standard output
 - o Time taken to compute the Born radii using DPG
 - o Time taken to compute the Born radii naively
 - o Average error the born radii
 - o Gpol computed with Born radii computed using DPG
 - o Gpol computed with Born radii computed naively

Overview of the software

