Quick-Start for using KiNG and kinemages

The KiNG kinemage viewer can be downloaded for stand-alone use on your own computer. MolProbity also generates various kinemages internally from PDB files, which can be downloaded.

To download and install the latest version of KiNG for your computer type, go to the releases of the Rlab Java software github.

The 2.24 release of KiNG should install the software with an appropiate copy of Java for your machine.

For Mac users: you may need to run a special command in order to run KiNG due to a security setting that is applied to programs downloaded from the internet. Trying to run the program without fixing the security setting will give a "This program is damaged and cannot be run" error and refuse to start KiNG. To fix this problem, open the Terminal program and navigate to the directory where you installed the KiNG app into. Run the following command: `sudo xattr -r -d com.apple.quarantine ./KiNG.app` This should fix the security setting and allow the program to be run normally.

Basic operations in KiNG

If not already specified, open the kinemage from the File menu. (Alternatively, you may start from a PDB coordinate file using "Import", and specify display options in the Molikin dialog.) The KiNG Text window will have information and usually instructions about what to see and do in the specific kinemage. The Graphics window is your main workplace: bring it forward by clicking in it (or on its border); move it by its top bar and resize by dragging lower right corner.

1. Rotate the molecule by slowly and smoothly dragging the mouse as though pushing on the front of the molecule; back & forth horizontally is the most intuitive motion. Dragging across the top 1/6th of the screen rotates in plane of screen. Remember to rotate often, for 3-D perception. On a multi-button mouse, use the LEFT button for most basic KiNG operations.
2. To identify an atom or point, click the mouse button when the cursor tip is on it; the "point ID" associated with that atom is displayed at bottom of screen (along with the distance from the previously-picked point).
3. Change scale with the "Zoom" slider bar at bottom of window (or drag up/down with the right mouse button). Change depth visible in display with "Clipping" slider bar.

4. To recenter, click the desired point of interest with the RIGHT mouse button. Alternately, check the box labeled "Pick center", then click on the desired point with the LEFT (or only) mouse button.
5. Turn parts of the display on or off with the labeled check-box buttons at the right of the graphics window. Animate between conformations, or between frames in an animated "tour", by either clicking on the "Animate →" button or typing 'a' on the keyboard.
6. Choose preset views on the "View" pulldown menu. Choose a new kinemage (if there is more than one in the file) from the list box in the upper right corner.
7. You can draw lines with "Edit/draw/delete" on the Tools menu. Turn on either "Draw line segments" or "Draw dotted lines", and then click the atom at EACH end of the desired new line. (Erase in reverse order with "Undo drawing".)
8. When you are done: On-line, exit by closing the window; off-line, pick "Exit" on the File menu.

This page last updated Jan 8 2020.