

Visualization with UCSF Chimera

Exercise 0: Mousing and manipulating the view

Oa: Mouse

Left drag = rotate

Middle (or Alt/Option) drag = move

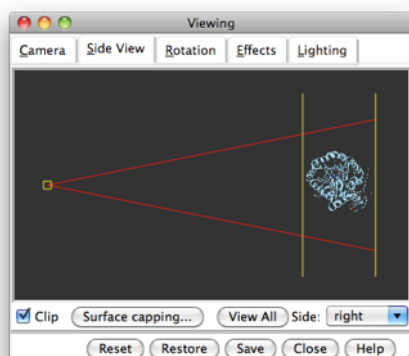
Right (or two-finger) drag = zoom

Scroll wheel or two-finger swipe = zoom quickly

Ctrl-Left Click = select/deselect

Shift-Ctrl-Left Click = add to selection

Slab: "Favorites > Side View"



Ob: Center of view and rotation

Zoom to the selection: "Actions > Focus"

Rotate about the selection: "Actions > Set Pivot" or Ctrl-Left Double Click and select "Set Pivot".

TIP: If nothing is selected, "Focus" and "Set Pivot" revert to the whole.

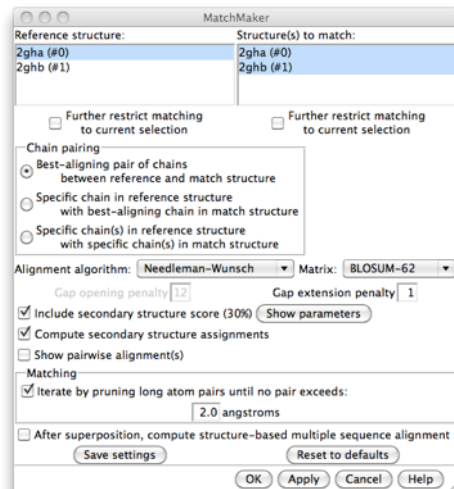
TIP: More on selections in Exercise 4.

Exercise 1: Morphing and Movies

Adapted from <http://www.cgl.ucsf.edu/chimera/tutorials/movies08/moviemaking.html>

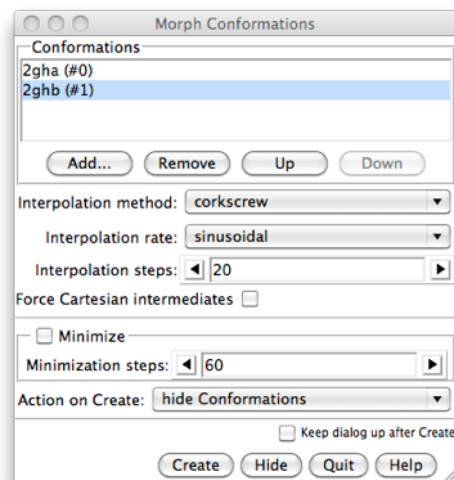
Load the start and end points, delete crystallographic dimers, and overlap them

1. Fetch “2gha” and “2ghb”: “File > Fetch by ID...”
2. “Select > Chain > C” then “Actions > Atoms/Bonds > delete”.
3. “Select > Chain > B > all” then “Actions > Atoms/Bonds > delete”.
4. Show the MatchMaker panel: “Tools > Structure Comparison > MatchMaker”
5. Click on “2gha” in the “Reference structure” box and click “OK”.



Compute the morph

1. Access the “Tools > Structure Comparison > Morph Conformations” panel.
2. Change “Interpolation rate” to “sinusoidal” and “Action on Create” to “hide Conformations”
3. Click “Add...” to add the first and second conformation. Then click “Create” and wait a few seconds. A new window and the morph should appear.



Output the movie

1. Click the Play button to view the movie. Save the movie with “File > Record Movie...”

TIP: Images and movies are rendered at the size of the 3D window unless specified otherwise. Movies benefit from using a specific frame size. Set the frame size by setting the size of the 3D window:

1. Access the command line: “Favorites > Command Line”
2. Type “window size 640 480”

