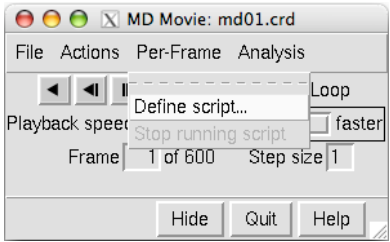


MD Movie Scripting

1

Bring up script dialog with Per-Frame→Define script...



2

Choose scripting language

3

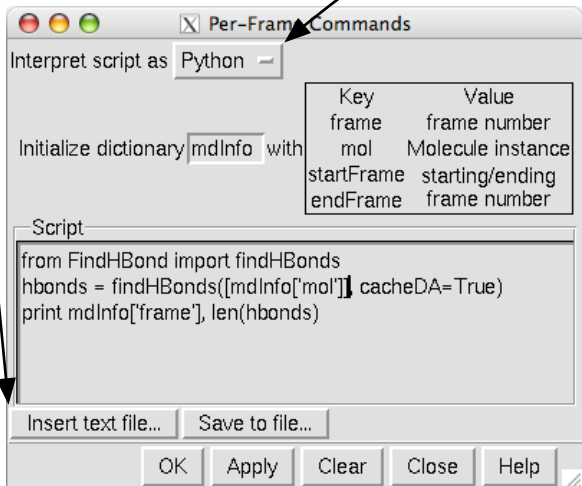
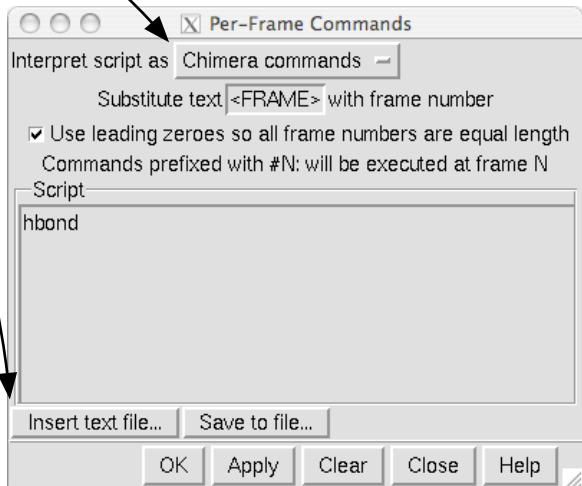
Type in script or read from file

5

Play/record movie (may want to disable Loop)

4

Click Apply/OK (executes for current frame)



Custom MAV Headers

Static Headers

The ability to add pre-computed headers to your alignment is covered well in the MultAlign Viewer documentation.

Dynamic Headers

Read MAVHeader/ChimeraExtension.py for example header definitions. You may also want to look through MultAlignViewer/HeaderSequence.py for useful methods to use/override.

Create a directory containing a ChimeraExtension.py with your header definitions. Don't put the directory inside the Chimera distribution since it will be lost if you upgrade Chimera. To get Chimera to use the headers, add the directory above the directory you created to the Locations list in the Tools preference category.

Your header class should subclass from **DynamicHeaderSequence** or **DynamicStructureHeaderSequence** (the latter if your header values depend on what structures are associated with the alignment). You use the *registerHeaderSequence* function to notify Multalign Viewer of the existence of your header class. The *defaultOn* keyword arg controls whether the header defaults to being shown initially.

The alignment sequences will be available as *self.mav.seqs* .

The one method you absolutely must define yourself is *evaluate(pos)*, which returns the value of the header at alignment position *pos* (indexing starts at zero). The value should be whatever is appropriate for the header, *e.g.* Conservation Percentage would be a number in the range 0-100.

Two methods that you most likely will want to override are *colorFunc(line, pos)* and *depictionVal(pos)*. *colorFunc* returns the color to use at *pos*. The color should be a string that Tk accepts as a color, such as any of the normal color names in Chimera or an "#rrrgggbbb" string. The *line* argument is essentially another copy of *self* and can be ignored in this context. The *depictionVal* method should return a value to use to depict the header at *pos*, either a character, a number in the range 0-1, or None. The *histInfinity* method can be useful for converting an unbounded range of numbers to the range 0-1.