How to make movies
by Joshua Kritzer

Here's a short treatise prepared by Josh for a fan at UCSD on how to make movies to include in PowerPoint presentations you give as job or postdoctoral interviews.

Hello,
I am the graduate student who helped Alanna create the movies of rotating molecules. They were actually not too difficult to generate, using the free software SwissPDBViewer and a few free plug-ins. If you don't already know SwissPDBViewer, you can download it at:
http://www.expasy.ch/spdbv/text/disclaim.htm
This is a great modeling software package that generates ribbons, surfaces, VDW and other respresentations of proteins. I actually generated the images you saw after only half a day of using the software, so it is relatively simple to use! The same website has a user guide and tutorial. Once you have the molecule loaded up and displayed exactly how you want it, you can save it as a POV file. This is an input file for the rendering program POV-RAY, also freeware. Download it at:
http://www.povray.org/
It generates really top-quality rendered images. Finally, there is a way to rotate the molecule and render snapshots that can be compiled into a movie without physically moving it and re-saving in SwissPDBViewer. That involves the Clockmod plug-in. Download it at:
http://www.geocities.com/SiliconValley/Lakes/1434/clockmod.html
To incorporate it into POV-RAY, follow instructions at:
http://www.tenorsax.freeserve.co.uk/SPDBV/Animation.htm
This is a great independent page that will take you through the remaining steps. If you have a PC or Unix computer, you will probably generate a series of PICTs that can then be compiled into a movie file using another media program.
If you use a Mac (like we do), you are in luck, because POV-RAY will save all the images into one Quicktime movie automatically, so it will render and compile at the same time.
Well, hopefully this is enough to generate the movies your adviser wants. If you have any more questions, feel free to email me at joshua@paris.chem.yale.edu!
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