

ConSCRIPT: A RasMol TO PyMOL TRANSLATOR. Scott Mottarella, Brett Hanson, Charles Westin, Paul Craig*, Herbert Bernstein, Biological Sciences, Rochester Inst. of Technology, sxm3428@rit.edu, pac8612@rit.edu.

For many educators and scientists, PyMOL is the application of choice for preparing images and animations of their structures because of the beauty and quality of the images. However, many are most familiar with the scripting languages associated with RasMol, Chime and Jmol. The long-range goal of our Structural Biology Extensible Visualization Scripting Language project is to make the multiple molecular visualization tools available to the broadest possible audience, where each user can use many programs, with knowledge of the scripting language for only one of those programs. The first step has been a comparison of the command sets for RasMol and PyMOL, followed by creation of a plug-in for PyMOL that will accept RasMol script files, translate the commands into PyMOL script and execute the commands. The process involves searching for recognized, valid, RasMol script commands and performing its PyMOL equivalent, either as a single command or as a series of commands that produce the same result. Future plans include expansion to additional molecular visualization programs and the preparation of a web site to provide script translation among the various programs. The project is funded in part by NIGMS grant #1R15GM078077.