

|                                 | Jmol   | Chemis3D   | ChemApplet                             | Eric          | Antonc           | xyzApplet | JaMM                                   | WebMol                      | MoVie                                    | MoVie3D                                  | JMV               | PDBjViewer  |
|---------------------------------|--|--|--|---------------|------------------|-----------|--|-----------------------------|--|--|-------------------|---|
| <b>Runtime Environment</b>      | 1.1  | ?  | ?                                      | 1.0           | 1.1              | 1.1       | 1.2                                    | 1.0                         | 1.3                                      | 1.3                                      | 1.3               | 1.4.2   |
| <b>Java3D (OpenGL)</b>          | no   | no   | no                                     | no            | no               | no        | no                                     | no                          | no                                       | yes                                      | yes               | yes   |
| <b>JavaScript</b>               | yes  | ?  | ?                                      | no            | yes              | no        | no                                     | ?                           | yes                                      | yes                                      | no                | yes   |
| <b>Scripts by parameter</b>     | yes  | yes  | yes                                    | no            | no               | no        | no                                     | yes                         | yes                                      | yes                                      | no                | yes   |
| <b>Chime/Rasmol Scripts</b>     | Chime  | no   | no                                     | no            | no               | no        | no                                     | no                          | no                                       | no                                       | no                | Rasmol  |
| <b>Load formats</b>             | pdb, xyz, mol, cml, mopac, CIF and mmCIF, dalton, gammess and jaguar, and more | PDB (zipped)                                     | csf                                    | pdb           | pdb,xyz          | xyz       | Own defined (pdb planned)              | pdb                         | pdb,cif                                  | pdb,cif                                  | pdb, own defined  | pdb, pdb-ml (XML version of pdb file), polygon object |
| <b>Usable molecule size</b>     | small/large  | small/large                                      | small                                  | small         | small/large      | small     | small                                  | small/large                 | large                                    | large                                    | small             | small/large   |
| <b>Set background</b>           | yes  | no   | yes                                    | no            | no               | no        | yes                                    | yes                         | yes                                      | yes                                      | planed            | yes   |
| <b>Focus region of interest</b> | yes  | yes  | yes                                    | no            | yes              | no        | yes                                    | no                          | yes                                      | yes                                      | no                | yes   |
| <b>Display modes</b>            |  | Wires, sticks, balls & sticks, spheres, backbone | Wires, sticks, balls & Sticks, spheres | Ball & sticks | Balls & sticks   | Balls     | Wires, sticks, balls & Sticks, spheres | Lines, backbone surface     | Wires, spheres, backbone, tubes, ribbons | Wires, spheres, backbone, tubes, ribbons | Sticks, backbone, | Wires, spheres, backbone, ribbons, surface            |
| <b>Stereo</b>                   | no   | no   | no                                     | no            | no               | no        | red/green left/right                   | left/right                  | no                                       | no                                       | yes               | no  |
| <b>Surfaces</b>                 | Conolly, van der Waals   | no   | no                                     | no            | no               | no        | no                                     | Dots Conolly, van der Waals | no                                       | no                                       | no                | yes   |
| <b>Measurement</b>              | Distance, angles   | -  | -                                      | -             | Distance, angles | -         | ?                                      | Distance, angles            | -  | -  | ?                 | ?   |
| <b>Special features</b>         | Multiframe   |  | Spining                                | Simple        |                  |           |  | Stereo view                 | Save                                     | Save                                     | Save state        | Content   |

|   |  |       |       |       |       |       |       |       |                                      |                                      |       |                               |
|---|--|-------|-------|-------|-------|-------|-------|-------|--------------------------------------|--------------------------------------|-------|-------------------------------|
|   | archive,<br>multiframe<br>CML,<br>Open source, |       |       |       |       |       |       |       | molecule,<br>structural<br>alignment | molecule,<br>structural<br>alignment |       | based<br>Surface<br>Texturing |
| <b>Can be run as standalone</b>   | yes  | no    | no    | no    | no    | no    | no    | yes   | ?                                    | ?                                    | yes   | yes                           |
| <b>Publication</b>  |  |       |       |       |       |       |       | [10]  | [11]                                 | [11]                                 |       | [12]                          |
| <b>Web URLs</b>   | [W13]  | [W12] | [W14] | [W15] | [W20] | [W21] | [W18] | [W14] | [W17]                                | [W14]                                | [W23] | [W25]                         |
| A question mark means that no information about this point is provided. |  |       |       |       |       |       |       |       |                                      |                                      |       |                               |

A brief explanation to Table 2: 'Runtime environment' indicates the version. Indication of old version numbers means the chance of running without problems. The newer the version number is, the more powerful is the functionality. 'Java3D' indicates if the applets use the 3D interface of modern graphics cards. 'JavaScript' indicates if the applet is able to import parameters from JavaScript. 'Scripts by parameter' means that the applet can handle scripts, and if yes, if it is possible to pass a script to the applet in addition to other parameters. 'Chime/Rasmol Scripts' means if the applet can interpret Chime or Rasmol scripts. As these scripts are very widespread, it is favourable if an applet can do this. Thus the webmaster can avoid reprogramming scripts if he changes from Chime to a Java applet. 'Load formats' describes the data formats the applet can load. The openBabel [W11] project allows to convert between the different molecule formats. Normally most applications can load PDB files. 'Usable molecule sizes' indicates if the applet is better for small molecules like caffeine or for proteins. 'Set background' indicates if the user can set the color of the background. Sometimes this is important if the user wants to take screenshots for publications. 'Focus region of interest' means that the user can interactively select atoms and maybe color them later. 'Display modes' lists the different ways an applet can display the molecules. 'Stereo viewing' and 'surfaces' are special features of applets that are only provided by few. 'Measurement' means if the user can measure e.g. distances of atoms or angles. 'Special features' lists all features that are not part of the mentioned menus.