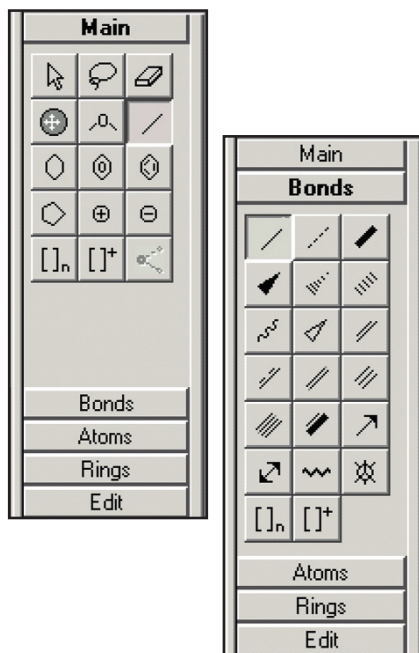


ChemWindow[®]
Edition



KnowItAll[®]
Informatics System

BIO-RAD



One interface.

KnowItAll's ChemWindow® Edition is the most comprehensive chemistry publishing software available today. ChemWindow helps you produce great presentations for all aspects of chemistry research. It is designed for the chemist who needs to draw chemical structures and publish professional reports, complete with structures, spectra, chromatograms, chemical reactions, lab experiment setups, chemical engineering diagrams, data tables, and more! Includes in-place editing from within MS Office programs.

DrawIt.™

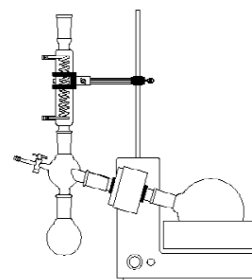
2-D chemical structure drawing program.

The ChemWindow Edition offers a complete range of chemistry presentation tools. With the ChemWindow Edition, you can draw any chemical structure with just a few clicks and drags. It has all the tools you need to draw rings, bonds, atoms, chains, arrows, and chemical symbols. With programmable hot keys, you can quickly label common groups by typing a single key.

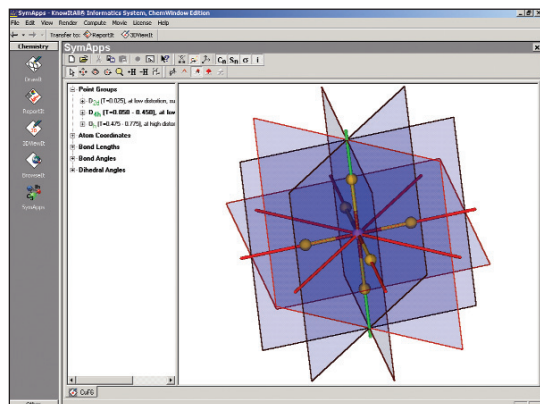
Clearly illustrate experiments and engineering processes.

If you have ever had to document a laboratory experiment, you know that it is nearly impossible to do without illustrations. The Laboratory Glassware Collection contains more than 130 Illustrations to help you communicate and document your experiments. All pieces are drawn to scale and snap together at joints for easy construction.

The Chemical Engineering Collection offers more than 250 process flow symbols including furnaces, filters, compressors, coolers, exchangers, evaporators, silos, separators, tanks, towers, vessels, and valves. You'll find everything you need to draw realistic process flow diagrams.



Top Quality 3-D Presentations, 3-D Modeling, and Publishing



KnowItAll also includes SymApps™, a professional symmetry analysis and 3-D molecular rendering program, designed for desktop visualization and publishing. A modified MM2 force field minimization module converts 2-D structure drawings to 3-D in just seconds! SymApps calculates, displays, and animates the symmetry for a molecule including rotation axis, mirror planes, and inversion centers. You can also create movies for three basic rotations and export them as .avi files that will run in any Windows application that supports this format. Symapps also allows you to calculate crucial information such as point groups, bond lengths, angles, and dihedral angles for all atoms in the structure.



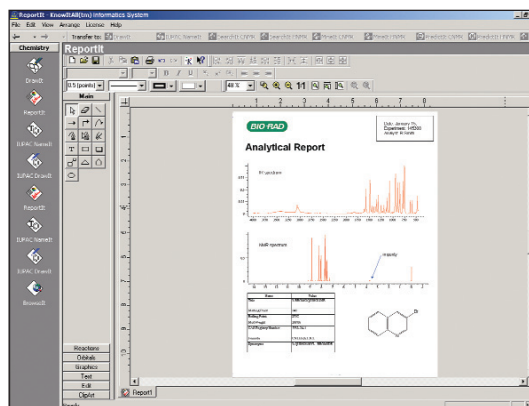
ReportIt.™

Communicate knowledge according to your needs.

In addition to the most sophisticated structure drawing available, you can create standard reports, design papers, presentations, and web publications that fit your specific communication needs. Reports are easy to lay out by using one of our predefined templates or creating one of your own.

The ChemWindow Edition also includes an annotation tool to create links between objects like structures, formulas, captions, tables, graphics, etc. and present clear graphical comments for key elements of your experiments. And because some of your results need to be presented in tables, a Table Tool has been added so you can quickly enter and organize your data. Design your own table or choose from a number of predefined table styles.

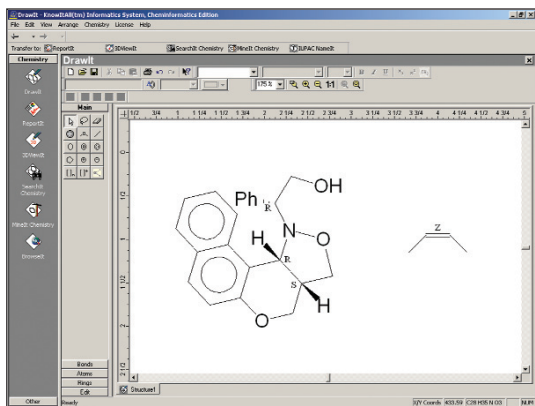
The ChemWindow Edition also offers full color support for publication-quality presentations.



Publish spectral data, chromatograms, and peak tables.

With the ChemWindow Edition you can directly import IR, NMR, MS, and Raman spectra, and chromatograms, using common native file formats.

Once your spectra or chromatograms are imported, you can annotate them with text and structures, select peaks, generate peak tables, produce and edit property tables, zoom in to focus on specific peaks and regions, change colors and fonts, annotate peaks, and do whatever you need to improve both the understanding of your data and the presentation of your work.



Stereochemical Recognition.

KnowItAll recognizes stereochemistry and automatically specifies R/S centers and E/Z double bonds. Complex mixtures of diastereomers including relative and absolute stereochemistry can be represented with a single structure.

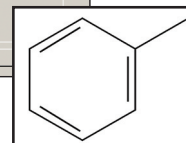
Calculation Tools...

Easy mole-to-mass conversion.

The screenshot shows the 'Formula Calculator' dialog box. It has a 'Formula' field containing 'C₆H₁₂O₆'. Below it are fields for 'Mol weight (g/mol): 180.157680', 'Moles: 1.000000', and 'Mass: 180.157680'. A 'Close' button is at the bottom right.

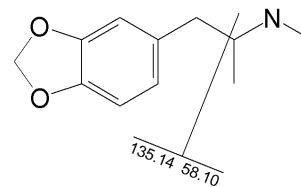
Calculate mass from structure.

The screenshot shows the 'Calculate Mass & Composition' dialog box. It has a 'Formula' field containing 'C₇H₈'. Below it are fields for 'Molecular Mass: 92.14 g/mol', 'Exact Mass: 92.062600 g/mol', and 'Composition: C 91.23%, H 8.73%'. A 'Copy Text to Clipboard' button is at the bottom.



MS Fragmentation Tool.

The MS Fragmentation Tool is the fastest way to determine whether your proposed structure might match your mass spectral data. This tool draws a movable fragmentation line through the proposed structure and displays the mass for the fragments on both sides of the line.



BrowseIt.™

With this application, gain access to an exclusive community for KnowItAll users with useful links, user discussion board, articles, tips, and technical information.

KnowItAll also includes limited access to:



IUPAC NameIt.™

Automatically returns the systematic IUPAC name for structures with up to ten non-hydrogen atoms. Gain full functionality by purchasing the IUPAC NameIt application.



IUPAC DrawIt.™

Automatically generates a structure of up to ten non-hydrogen atoms when a systematic IUPAC name is provided. Gain full functionality by purchasing the IUPAC DrawIt application.

Main features in the ChemWindow Edition:

- Customizable toolbars with tools to easily draw chemical structures. Includes bonds, rings, arrows, charges, curves, templates, etc. Also includes Pen Tool for freehand drawings.
- Chemical recognition features, such as hot keys, chemical syntax checker, tools to calculate mass and formula, etc.
- Libraries with hundreds of laboratory glassware drawings and engineering symbols.
- In-place editing in word processing and presentation software.
- MS Fragmentation Tool to display a mass for each fragment. Allows multi-fragmentation in one step.
- Align, space, center graphics and rotate captions.
- Includes predefined styles for captions and structures.
- Supports color drawings and background color. Adjustable color display for atoms, bonds, axes, planes, and backgrounds.
- Provides high-quality, realistic 3-D drawings, complete with spacefill, ball & stick, stick, and wire frame display options.
- Modified MM2 force field minimization converts 2-D structures to 3-D. Display interactive, real-time 3-D rotation of large and small molecules to create movies for symmetry operations.
- Calculate point groups, character tables, bond lengths, angles, and dihedral angles for all atoms in the structure.
- Table Tool to easily enter and organize your data.
- Imports ChemDraw and MDL molfiles.
- Stereochemical recognition.
- Import IR, NMR, MS, and Raman spectra, and chromatograms in common native file formats.
- Choose from three display modes for spectral presentation: overlay, stack, and offset.
- Editing features to customize the appearance of your spectra and chromatograms.
- Annotation Tool to link objects like spectral peaks to text graphics or chemical structure captions.

Minimum System Requirements: Windows-compatible PC, CD-ROM Drive, Windows 2000, Windows XP Home, or Windows XP Professional operating systems, Pentium III (or equivalent) processor, 128 MB of RAM, 100 MB of free hard disk space (Additional disk space required for HavelItAll® databases).

When using Windows 2000 or Windows XP Professional, log on with Local Administrator privilege when you install KnowItAll. Activation of KnowItAll also requires that you are logged on with Local Administrator privilege.

If you are setting up to use Citrix or Windows Terminal Server please contact Bio-Rad Informatics for further information.

KnowItAll is not developed for Windows 95, Windows 98, Windows 98 SE, Windows ME or Windows NT 4.0. There is also no Macintosh, Unix or Linux version of this software.

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