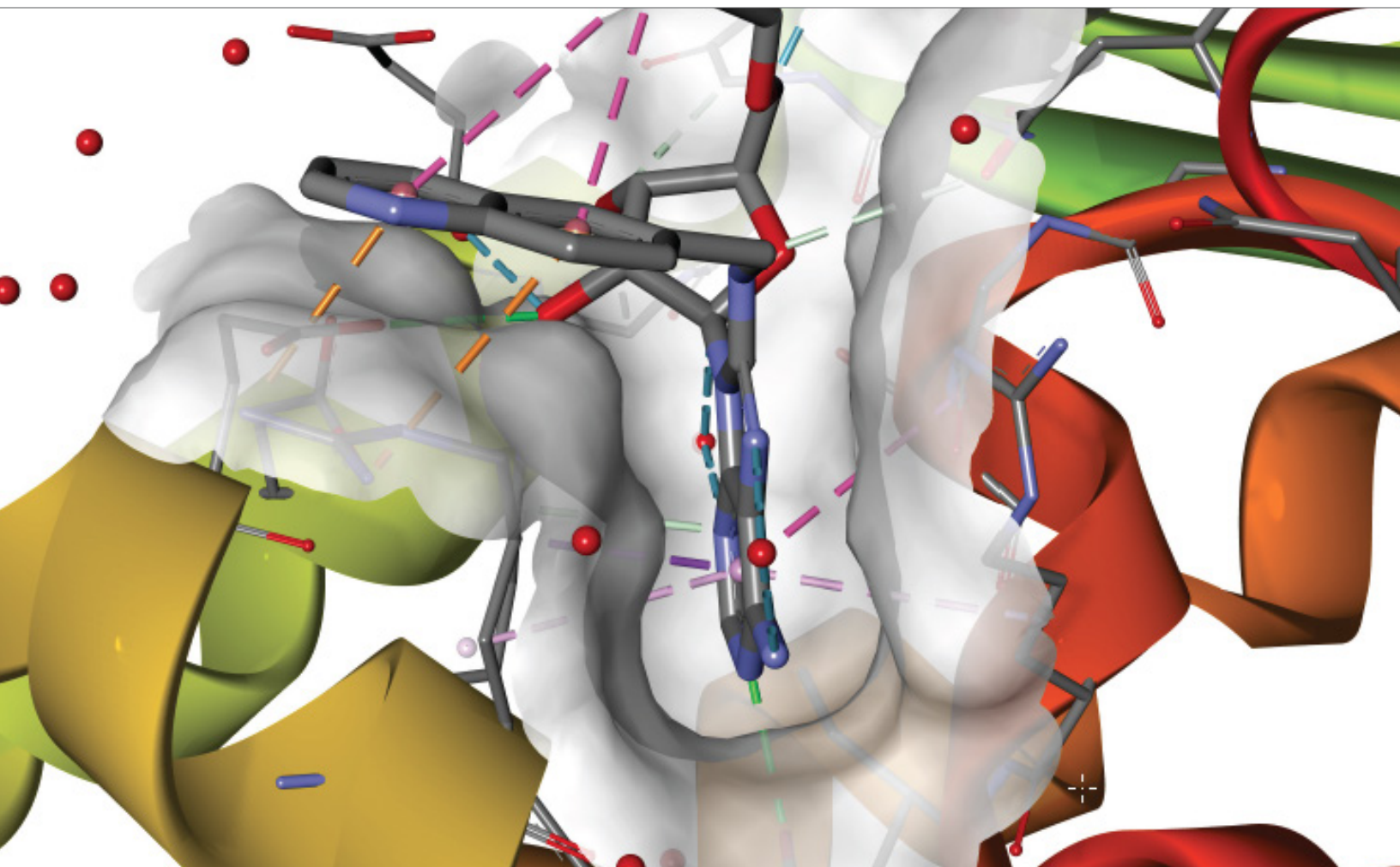


BIOVIA DISCOVERY STUDIO[®] VISUALIZER

DATASHEET



**FREE
VISUALIZATION
AND ANALYSIS
SUITE**

If you need access to commercial-grade 3D molecular visualization tools for viewing, sharing and analyzing protein and small molecule data, then BIOVIA Discovery Studio Visualizer (DS Visualizer) offers an extensive set of free functionality.

BIOVIA DS Visualizer is a free, feature-rich molecular modeling environment, for both small molecule and macromolecule applications. Built from, and fully compatible with the latest release of our enterprise-ready expert modeling product, BIOVIA Discovery Studio 4.0, experts and colleagues can seamlessly and efficiently exchange results, without loss of either time or scientific information.

BIOVIA DISCOVERY STUDIO VISUALIZER

With BIOVIA Discovery Studio Visualizer (DS Visualizer), the following features are available without a license:

- **Visualization:**
 - Advanced molecular visualizations
 - Publication quality graphics
 - Hardware acceleration and stereo support†
- **Macromolecule design:**
 - View and edit multi-domain protein sequences (e.g., Antibodies)
 - Predict Secondary structures
 - Superimpose and edit protein structures
- **Ligand-based design:**
 - Sketching and fragment building tools
 - Manual pharmacophore generation
 - Flexibly overlay ligands
- **Structure-based design:**
 - Define, display and edit ligand binding sites
 - Create 2D ligand-receptor interaction diagrams
 - Monitor non-bond interactions including **favorable**, **unfavorable** and **unsatisfied** interactions
 - Display a range of molecular surface properties including: H-bonds, Charge, Ionizability, Lipophilicity, Aromaticity and Solvent Accessibility
- **Share and Collaborate:**
 - Visualize 3D molecules in Microsoft Office® and web pages (ActiveX Control)
 - Capture and share scenes with 'Storyboard'
 - Access 2D and 3D charts, heat maps and more

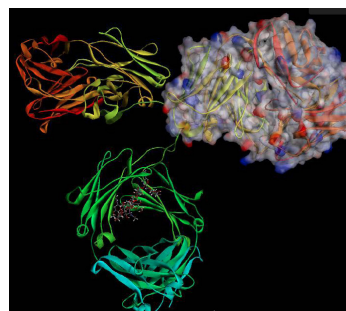
WINDOWS AND LINUX COMPATIBLE:

- **Windows:** Windows 7 (64 bit), Windows 8 (64 bit)
- **Linux:** Red Hat 5 (64 bit) and Red Hat 6.3 (64 bit)

SUPPORTED GRAPHICS CARDS*

The following cards are a selection of those supported with both the DS Client 4.0 and DS Visualizer 4.0:

- **AMD/ATI** FireGL V7600[St], V7700[St], V8600[St]
- **ATI** FirePro W5000[St; Win only], V3800, V5800, V7900, V8700[St]
- **Nvidia** Quadro FX4800[St], FX5800[St], 600, 2000[St], 4000[St], 6000[St]



DS ACTIVEX CONTROL

DS ActiveX Control is a free plug-in* that provides interactive 3D visualization of small molecules, proteins, nucleic acids, crystal structures and pharmacophore models. Fully compatible with BIOVIA DS Visualizer 4.0, capabilities include:

- **Storyboard support:** Incorporates all of the scene transition, timing and auto-play features.
- **DSV file support:** Now fully supports the latest release of the BIOVIA DSV file format.
- **Graphics support:** Supports the latest enhancements to depth blur, and also direct and ambient shading.

BIOVIA DISCOVERY STUDIO 4.0 VISUALIZER: FREE VERSUS COMMERCIAL COMPARISON

The following table summarizes key features available with the free BIOVIA Discovery Studio Visualizer.

In comparison, with the licensed version of BIOVIA Discovery Studio client, you can connect to an existing BIOVIA Enterprise Platform (AEP) server and:

- Access BIOVIA Discovery Studio protocols available in BIOVIA Pipeline Pilot for protein design and analysis, structure-based design, pharmacophore modeling, ADMET predictions and simulations
- View and customize protocols, share them with colleagues, and run them from the BIOVIA Discovery Studio or BIOVIA Pipeline Pilot client

To learn more about BIOVIA Discovery Studio, go to: accelrys.com/discovery-studio

[St] = Graphics card with hardware stereo support

* Further information is available at accelrys.com/products/discovery-studio/requirements/technical-requirements-400.html

* DS ActiveX Control is an independent product and is available as a separate free download with DS Supported Operating Systems†

Type	Feature
General	High quality graphics with advanced display options and stereo support
General	Ability to generate publication quality images
General	Interactive 3D graphical view with associated hierarchy and data table views
General	Multiple sided surfaces and isosurfaces for enhanced molecular visualization
General	Ability to plot data from multiple data series with line and point plots, 3D plots and bar charts
General	Charting capability including heat maps, histograms, hit rate plots and more
General	Storyboard functionality to capture series of molecular views to demonstrate and share
General	Export storyboards as movies or as Microsoft Powerpoint presentations with embedded structures
General	Sorting, filtering and grouping functionality available for properties in the data table
General	Perl scripting to automate repetitive tasks or link tasks together for ease of use

Type	Feature
General	Tool panels, tool bars and interface layout can be customized as desired
General	Support for a wide variety of structure and sequence file formats
General	RMS calculations available at different levels of detail
General	Monitors available for a wide variety of favorable, unfavorable and unsatisfied non-bond interactions
General	Ability to generate publication quality images
Protein	Molecular Builders for peptides and nucleic acids
Protein	Calculation of Solvent Accessibility to identify buried and exposed residues
Protein	Graphing functionality, including Ramachandran and contact plots
Protein	Load protein structures directly from the PDB database
Protein	Generate protein reports to summarize data in protein structures
Protein	Construct the biologically active unit of a protein from its subunits
Protein	Clean protein functionality to add missing side-chains, remove disorder and standardize atom naming
Protein	Enhanced display of protein and nucleic acid sequences and analysis of their composition and alignments
Protein	Superimpose structures based on tethers, residues and sequence alignment
Protein	Secondary structure prediction of protein sequences
Protein	Annotation window to view and edit annotations for nucleic acid and protein sequences
Protein	Display and contour X-ray electron density maps
Protein	Basic tools to edit X-ray structures
Protein	Sampling of side-chain rotamer conformations and interaction analysis
Ligand Design	Receptor-ligand interaction surfaces displaying hydrophobicity, hydrogen bonding, aromaticity and more
Ligand Design	View 2D depiction of molecules in the data table
Ligand Design	Sketching tools to create new small molecules
Ligand Design	Modify or build custom 3D small molecules using a tool panel of pre-defined fragments
Ligand Design	Optimize the geometry of built structures with a fast Dreiding-like forcefield
Ligand Design	Basic molecular properties can be calculated such as molecular formula and molecular weight
Ligand Design	Superimpose structures based on molecular overlay using field alignment or tethers
Ligand Design	Define, display and edit ligand binding sites
Ligand Design	Generate 2D receptor-ligand interaction plots
Ligand Design	Analyze the ligand binding patterns between a protein and its bound ligands
Ligand Design	Manually generate pharmacophore (Catalyst) queries

Our 3DEXPERIENCE Platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the 3DEXPERIENCE Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 170,000 customers of all sizes in all industries in more than 140 countries. For more information, visit www.3ds.com.



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