

Discovery Studio: System Requirements



This document describes the supported installation environments for BIOVIA Discovery Studio 2025.

Note: There are more specific requirements for users that want to run CHARMM OpenMM, ZDOCK, or NAMD jobs on a GPU in Discovery Studio. For more information, see [Operating Systems and CUDA Version for GPU Computing](#) on page 3.

Server Requirements

Operating Systems

Operating System	Version
Windows Server Standard & Datacenter with Desktop Experience 64-bit	2022
	2019
	2016
Windows 11 Pro, Enterprise & Pro for Workstation 64-bit	23H2
Windows 10 Pro, Enterprise & Pro for Workstation 64-bit	22H2
Red Hat® Enterprise Linux® 64-bit	9
	8.6+
Rocky® Linux 64-bit	8.6+

Note: Microsoft Windows should be used for standalone or single-user deployments only.

Hardware

Component	Minimum Hardware
Processor	Intel x86_64
	AMD x86_64
RAM	<ul style="list-style-type: none">4 GB per core16 GB for a single core processor
	Note: Additional memory will increase performance.

Note: Protocols and Components with Python dependencies require CPUs with Advanced Vector Extensions (AVX) instructions.

Disk Space

The following table gives approximate space requirements for Discovery Studio.

Component	Approximate Size
Pipeline Pilot Server with Discovery Studio Collection	70 to 80 GB: <ul style="list-style-type: none"> ▪ 10 GB for Discovery Studio Collection. ▪ 10 to 20 GB for Pipeline Pilot Server components. ▪ 50 GB (minimum) of free disk space for runtime environment, user data files, etc.

Required BIOVIA Software

Software	Supported Versions	Notes
Pipeline Pilot Server	2025	BIOVIA Discovery Studio requires an installation of Pipeline Pilot Server. Refer to the <i>Discovery Studio Installation Guide</i> for details.
Pipeline Pilot Biology Collections third-party tools	2025	BIOVIA Discovery Studio relies on the Pipeline Pilot Sequence Analysis collection, which requires the separate installation of third-party tools that support the Pipeline Pilot Biology Collections. Refer to the <i>Discovery Studio Installation Guide</i> for details.

Supported Software for the Grid

Software	Version	Notes
PBS Pro	2022.1	Linux only https://www.altair.com/pbs-professional/
Slurm Workload Manager (SLURM)	23.x	Linux only https://slurm.schedmd.com
	22.05.x	

Operating Systems and CUDA Version for GPU Computing

Note: See [Operating Systems](#) on page 1 for supported versions.

Executable	Protocols	Operating System	CUDA Version
CHARMm	<ul style="list-style-type: none"> ▪ Dynamics (Production) ▪ MSLD Bias Optimization and Production ▪ CHARMm Relative FEP Calculations (GPU) 	Red Hat	10.2
ZDOCK	<ul style="list-style-type: none"> ▪ Dock Protein (ZDOCK) 	Windows	11.4
		Red Hat	11.4
NAMD	<ul style="list-style-type: none"> ▪ Dynamics (NAMD) ▪ Solvate with Explicit Membrane ▪ GaMD Production ▪ GaMD Equilibration 	Windows	9
		Red Hat	11

Notes:

- All the required CUDA libraries are included in the Discovery Studio server installation.
- CHARMm OpenMM (version 7.4.2) supports CUDA and OpenCL libraries. CHARMm DOMDEC and BLADE support CUDA, but not OpenCL.
- On Windows, NAMD 2.13 supports Turing cards with special compilation options even though it is built with CUDA 9.

Graphics Cards and Drivers for GPU Computing

The following combinations of NVIDIA graphics card, driver, and operating system are tested and certified:

Graphics Card	Driver Version	Operating System	Graphics Memory	Notes
RTX A6000	525.116.03	Red Hat 8.7	49 GB	
RTX A6000	552.22	Windows 11 Enterprise	49 GB	Not applicable to CHARMm
RTX 6000	555.42.06	Red Hat 8.7	49 GB	
RTX 4080	555.42.06	Red Hat 9.4	16 GB	
RTX 4080	550.90.07	Red Hat 8.10	16 GB	
RTX 3080	550.90.07	Red Hat 8.7	10 GB	
RTX 3080	551.86	Windows 11 Enterprise	10 GB	Not applicable to CHARMm

Linux System Libraries

Linux system libraries that are required for the Discovery Studio server and client may not be installed by default. The Discovery Studio distribution includes `check_system.sh`, which you can use to check which libraries are needed for your server. If system libraries needed for the client are not installed, you may not be able to open it after installing.

Server

IMPORTANT! For Red Hat 9 installations, create a symbolic link from `libnsl.so.3.0.0` to `libnsl.so.2`:

```
cd /lib64
ln -s libnsl.so.3.0.0 libnsl.so.2
```

For more information, see <https://access.redhat.com/solutions/706307>.

- | | | |
|----------------------------|-----------------|---------------|
| ▪ alsa-lib | ▪ libdrm | ▪ libXdamage |
| ▪ audit-libs | ▪ libgcc | ▪ libXdmcp |
| ▪ bc | ▪ libglvnd-glx | ▪ llibXext |
| ▪ bzip2-libs | ▪ libICE | ▪ libXfixes |
| ▪ cairo | ▪ libjpeg-turbo | ▪ libXi |
| ▪ compat-libtiff3 | ▪ libnsl2 | ▪ libXinerama |
| ▪ dejavu-sans-fonts.noarch | ▪ libpcap | ▪ libXmu |
| ▪ e2fsprogs-libs | ▪ libpng16 | ▪ libXpm |
| ▪ expat | ▪ libselinux | ▪ libXrender |
| ▪ fontconfig | ▪ libsepol | ▪ libXt |
| ▪ freetype | ▪ libSM | ▪ libXtst |
| ▪ gcc-c++ | ▪ libstdc++ | ▪ libXxf86vm |
| ▪ gd | ▪ libuuid | ▪ pam |
| ▪ glib2 | ▪ libX11 | ▪ pcre2-utf16 |
| ▪ glibc | ▪ libXau | ▪ tcsh |
| ▪ keyutils-libs | ▪ krb5-libs | ▪ zlib |

Client

IMPORTANT! For Red Hat 9 installations, create a symbolic link from `libnsl.so.3.0.0` to `libnsl.so.1`:

```
cd /lib64
ln -s libnsl.so.3.0.0 libnsl.so.1
```

For more information, see <https://access.redhat.com/solutions/706307>.

- | | | |
|----------------|--------------------|-----------------------|
| ▪ libGLU | ▪ libxkbcommon-x11 | ▪ xcb-util-keysyms |
| ▪ libnsl | ▪ mesa-libGLU | ▪ xcb-util-image |
| ▪ libglvnd-glx | ▪ pcre2-utf16 | ▪ xcb-util-renderutil |
| ▪ libpng16 | ▪ xcb-util | ▪ xcb-util-wm |

License Server

The license server may require additional libraries. See "Linux Libraries Required" in the *BIOVIA License Pack Installation Guide*, which is in the Discovery Studio2025 Documentation ZIP file.

Client Requirements

Operating Systems

Operating System	Versions
Windows 11 Pro, Enterprise & Pro for Workstation 64-bit	23H2
Windows 10 Pro, Enterprise & Pro for Workstation 64-bit	22H2
Windows 10 Multisession	22H2
Red Hat® Enterprise Linux® 64-bit	8.6+

Hardware

Component	Minimum Hardware
Processor	Intel x86_64
	AMD x86_64

Disk Space

Component	Approximate Size
Discovery Studio Client	1 GB

Graphics Cards

The Discovery Studio Client is supported on mid- to high-end graphic cards.

Browsers

IMPORTANT! A web browser is required to access Discovery Studio help.

Application	Versions
Mozilla Firefox	Latest 64-bit
	Latest 32-bit
Google Chrome	Latest 64-bit
	Latest 32-bit
Microsoft Edge (Chromium version)	Latest version

Note: To view the PDF format documentation included in the Discovery Studio help, you must have a PDF viewer installed on your machine. For Microsoft Edge you must have Adobe Reader installed, visit <https://get.adobe.com/uk/reader/>.

GNOME Desktop (Linux)

The Discovery Studio client is optimized for the GNOME Desktop. You should install and configure this software, which is available on your Linux distribution media.

Note: KDE Desktop is also supported.

System Libraries for the Client

See [Linux System Libraries](#) on page 4.

Dassault Systèmes Support Resources

For additional resources or to contact Dassault Systèmes Customer Support, visit the Support portal:

<https://www.3ds.com/support/>

From this portal, you can:

- Call or email Dassault Systèmes Customer Support
- Submit a request
- Download installers
- Access hardware and software requirements
- Access the Knowledge Base
- Access Communities and Twitter feeds

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Third Party Notification

Your BIOVIA Discovery Studio 2025 installation contains third-party software components. For details, refer to the BIOVIA Program Directory at <https://media.3ds.com/support/progdir/>.

Acknowledgments and References

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