RIB | 4.0

Sizing Guide

Contents

1 RIB 4.0 Software System Requirements

These system requirements apply only to the Application RIB 4.0.

General requirements for the network operation of the product line of RIB 4.0.

The connection of all workstations to the server must be ensured, the IP name resolution must be working.
RIB 4.0 does not support name resolution using WINS, DNS is recommended.
For operation in the network must be freely switched on all participating computers the following https 443/tcp #HTTP over TLS/SSL.
All servers must be running with 64-bit operating systems.

1.0.1 Individual workstations web browsers

As a single workplace RIB 4.0 only in the browser application is to operate.

Following web browsers are released for the application:

- Google Chrome as of version 115.0.5790.99, 32/64-bit desktop or Tablet operating systems.

- Mozilla Firefox, version 114.0.x

- Microsoft Edge (Chromium) 116.0.x

- Safari from version 16.x

No installation necessary since web browser application on the client side.

1.0.2 Database server

All MS Products will follow the Fixed Lifecycle Policy / https://learn.microsoft.com/en-us/lifecycle/policies/fixed.

We recommend using only products that have not reached the Mainstream End Date for full support. Extended End Date Products will follow different rules for Support. Please refer to the lifecycle product search
Quote of the official information from Microsoft:

1.1   Extended Support
The Extended Support phase follows Mainstream Support. At the supported service pack level, Extended Support includes:

- Paid support [3]
- Security updates at no additional cost

Note

- Microsoft will not accept requests for warranty support, design changes, or new features during the Extended Support phase.
- Extended Support is not available for consumer, consumer hardware, or multimedia products.
- Enrollment in a paid support program may be required to receive these benefits for certain products.

[3] Limited complimentary support may be available (varies by product).
Older products may not meet today's more demanding security requirements. Microsoft may be unable to provide security updates for older products.

Figure 1: https://learn.microsoft.com/en-us/lifecycle/policies/fixed#extended-support

Server / Network	System Requirements	Mainstream Support	Extended Support
Operating system	64-bit: Windows Server 2019 64-bit: Windows Server 2022	Jan 9, 2024 Oct 13, 2026	Jan 9, 2029 Oct 14, 2031
Database (each minimum is standard edition)	Microsoft SQL Server 2016 Microsoft SQL Server 2017 Microsoft SQL Server 2019 Microsoft SQL Server 2022 Microsoft Azure SQL managed instances Microsoft Azure SQL Single Database, Elastic Pool, Database server	Jul 13, 2021 Oct 11, 2022 Feb 28, 2025 Jan 11, 2028	Jul 14, 2026 Oct 12, 2027 Jan 8, 2023 Jan 11, 2033
Processor	2 Ghz or faster and number of cores (2 or more)		
RAM	16 GB minimum Recommended 64GB or more		
Storage	at least 80 GB free disk space		
Bandwidth network	1 GBit/s		
Protocol	Only TCP/IP is supported		

System requirements are for RIB 4.0 adopted about 50 simultaneous RIB 4.0 users in the network. Please consider the number of running workflows depending on the complexity maybe it is advised to run the workflows on a separate server, or you have a dedicated server where high load processes are running and no users are working.

More users increase according to the requirements of the server.

1.0.3 File Server archive

For the storage of project documents, RIB 4.0 requires a file archive on a file server.
The disk space required may vary depending on the number of project documents. The

archive must be available on a network share / SMB.

Server/network	System Requirements
Access via	Windows network share: i. e. < servername > < sharename >
Free disk space	Depending on the project size. Minimum 50 GB.

1.0.4 WEB application server

The RIB 4.0 application server is hosted on Microsoft Internet Information Server.

Server / Network	System Requirements	Mainstream Support	Extended Support
Operating system	64-bit: Windows Server 2019 64-bit: Windows Server 2022	Jan 9, 2024 Oct 13, 2026	Jan 9, 2029 Oct 14, 2031
Internet Information Server	Microsoft Internet Information Server Version 10 Microsoft .NET Framework 4.8.1 Microsoft .NET 6		
Processor	2 Ghz or faster and number of cores (2 or more)		
RAM	16 GB minimum Recommended 64GB or more		
Storage	at least 50 GB free disk space		
Bandwidth network	1 GBit/s		
Protocol	Only TCP/IP is supported		

System requirements are for RIB 4.0 adopted about **50** simultaneous **RIB 4.0 users** in the network.

More users increase according to the requirements of the server.

1.0.5 Model render server

The RIB 4.0 model render server is running as an application or as a Windows Service.
Internet Information Server is required for tunneling Web Socket connection over port 80/443.

Server / Network	System Requirements	Mainstream Support	Extended Support

Operating system	64-bit: Windows Server 2019 64-bit: Windows Server 2022	Jan 9, 2024 Oct 13, 2026	Jan 9, 2029 Oct 14, 2031
Internet Information Server	Microsoft Internet Information Server Version 10 Microsoft .NET Framework 4.8.1 Microsoft .NET 6		
Processor	2 Ghz or faster and number of cores (2 or more)		
RAM	16 GB minimum Recommended 64GB or more		
Server-Side Rendering	NVIDIA graphics device recommended		
Storage	at least 80 GB free disk space		
Bandwidth network	1 GBit/s		
Protocol	Only TCP/IP is supported		

Performance is highly dependent on model complexity, count of connections (viewers in use) and render mode:
server-side rendering **(SSR)** or client-side rendering **(CSR)**.

NVIDIA Geforce GTX and NVIDIA GRID GPUs give good performance. It's highly recommend using NVIDIA devices and drivers for server deployment. We've tested the NVidia K80, M60, P40, P100, V100 GPU cards. You need to install the latest NVIDIA Grid drivers on Native Operating Systems and Virtualized operating System as well.
You can use multiple NVIDIA graphics cards for the render model server.

> **Attention**: Please note the NVidia license terms when using an NVIDIA graphics cards.

Links to the NVIDIA Grid driver and support matrix

Grid Support Matrix: https://docs.nvidia.com/grid/6.0/product-support-matrix/

Azure GPU Grid Driver: https://docs.microsoft.com/en-us/azure/virtual-machines/windows/n-series-driver-setup

Nvidia License Documentation: http://images.nvidia.com/content/vGPU/pdf/Virtual-GPU-Packaging-and-Licensing-Guide.pdf

Virtual GPU Software Quick Start Guide: https://docs.nvidia.com/grid/latest/pdf/grid-software-quick-start-guide.pdf

CSR-Mode requires 3D graphics devices (NVIDIA Geforce GTX cards) on client side. SSR and CSR servers can be installed on different machines. For both rendering modes CSR or

SSR the render server module is required.

The amount of viewer instances that can be handled for SSR depends on selected graphics card and model complexity and size and number of client viewer instances (client windows).

More viewer instances increase the requirements of the render server or additional render servers might be necessary.

1.0.6 File Share for Render Server Models

The rendering models are locally stored on the render server - therefore it requires to have fast local disk space on the render server for keeping all models. The disk space required depend on the count and size of models.

Server/Network	System Requirements
Storage	Depending on the size of model files. Recommend: 100GB, better 1 TB of SSD storage

2 Revision Chart

The following chart lists the revisions made to this document.

Date	List of Changes
06.07.2018	New created document.
02.09.2018	Added Nvidia V100 card to supported video cards plus URL to Nvidia support matrix and driver.
24.09.2019	Updated to latest operating systems and browsers.
28.10.2019	Nvidia Document Update.
31.03.2020	SQL Server 2012/14 no longer supported; Windows Server 2012 no longer supported.
08.07.2020	Update supported Browser.
30.10.2020	New .Net Framework 4.8 required.
16.02.2022	Updated for Rel 5.2, OS Updated and Browser Updated.
16.02.2023	Updates for 6.2.
23.10.2023	Updates for 6.4 / SQL Server Version Information
25.06.2024	Updates for 24.1 / 24.2