

This document lists the hardware and software requirements for installing and running CaliforniaX.

## Single workstation with SQL Server

Processor	AMD or Intel, x64 processor At least : 1.4 GHz with 2 cores <b>Recommended:</b> 2 GHz or faster with 4 or more cores
Working memory	At least: 3 GB <b>Recommended:</b> Minimum 6 GB or 12 GB when using the BIM module. As the database size increases, the memory size should also be increased to ensure optimal performance.
Hard disk capacity	At least: 10 GB of available hard disk space. The required free hard disk space depends on the number and size of the projects or documents.
Screen resolution	At least: 1280x1024 pixels <b>Recommended:</b> 1920x1080 pixels (Full HD)
Optical drive	The installation files are provided in the standard way via the G&W Download Center. A DVD drive is only required if the delivery method is different.
Operating system	At least: Windows 10 1507 / Windows Server 2016 <b>Recommended:</b> Windows 11 or Windows Server 2022
SQL Server	Supplied: MS SQL Server 2022 Express Edition At least: MS SQL Server 2019 Express Edition <b>Recommended:</b> MS SQL Server 2022 Standard or Standard Runtime
.NET framework	.Net Framework 4.8
Network	The following SQL Server network protocols are supported: TCP/IP and Named Pipes.
Data backup	External storage media and a suitable backup program are recommended for backing up the CaliforniaX database.
Authorization	Administrative rights on the PC are required at the time of installation.
Internet	The use of some functions (access to awarding platforms, online help, G&W News, etc.) requires an Internet connection.

## Workstation connected to an external SQL server

Processor	AMD or Intel, x64-Prozessor At least: 1.4 GHz with 2 cores <b>Recommended:</b> 2 GHz or faster with 4 or more cores
Working memory	At least: 2 GB <b>Recommended:</b> Minimum 6 GB or 12 GB when using the BIM module. As database size increases, memory should be increased to ensure optimal performance.
Hard disk capacity	At least: 100 MB of available hard disk space.
Screen resolution	At least: 1280x1024 pixels <b>Recommended:</b> 1920x1080 pixels (Full HD)
Operating system	At least: Windows 10 1507 / Windows Server 2016 <b>Recommended:</b> Windows 11 or Windows Server 2022
.NET framework	.Net Framework 4.8
Network	The following SQL Server network protocols are supported: TCP/IP and Named Pipes.
Data backup	Not required at the workstation. The CaliforniaX database is backed up at the database server.
Authorization	Administrative rights on the PC are required <u>at the time of installation</u> .
Internet	The use of some functions (access to tender platforms, online help, G&W News, etc.) requires an Internet connection.

## Remote workstation (Terminal Services Client)

Operating system	The remote desktop client is supported by most operating systems including Windows, Linux and Mac OS. The requirements of the selected system apply.
Screen resolution	At least: 1280x1024 pixels <b>Recommended:</b> 1920x1080 pixels (Full HD)

## Database server (SQL server)

The scope of delivery includes a SQL Server 2022 Express Edition. The limitation of this free-of-charge Express edition are: 1 physical processor, 1 GB memory, 10 GB database size.

For 5-7 users or more, G&W recommends the use of a Standard / Standard Runtime Edition.

### Processor

AMD or Intel, x64-Prozessor At least: 1.4 GHz with 2 cores

**Recommended:** 2 GHz or faster with 4 or more cores

### Operating system

At least: Windows 10 1507 / Windows Server 2016 **Recommended:** Windows-Server 2022

### .NET framework

The minimum required operating systems include the minimum required version of .NET Framework.

### Network software

The supported operating systems for SQL Server have integrated network software. Named instances and default instances of a standalone installation support the following network protocols: shared memory, named pipes and TCP/IP

### SQL Server

Supplied: MS SQL Server 2022 Express Edition Minimum: MS SQL Server 2019

**Recommended:** MS SQL Server 2022

### Working memory

Minimum: 2 GB

**Recommended:** Minimum 4 GB or 8 GB when using the BIM module. As the database size increases, the memory size should also be increased for optimal performance.

### Hard disk capacity

SQL Server requires at least 8 GB of available hard drive space. The required free hard disk space depends on the number and size of the projects or documents.

### Optical drive

The installation files are provided in the standard way via the G&W Download Center. A DVD drive is only required if the delivery method is different.

### Data backup

External storage media and a suitable backup program are recommended for backing up the CaliforniaX database.