

# System Requirements

## BabtecQ R7, since version 7.7.0

Are you planning an update of BabtecQ or to modify your IT landscape? In order to ensure your BabtecQ system's continued functional capability, your hardware and software will have to fulfill certain requirements. Here you will find all the information you need about the minimum requirements.

**Please note:** This document contains **only** system requirements for BabtecQ. Specific system requirements for other required products like Microsoft operation systems, Microsoft or Oracle data bases or required third party products need to be gathered from the manufacturer's documents. This also applies even when the installation routines from the correspondent manufacturers have already been provided with BabtecQ.

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## 1 BabtecQ

BabtecQ is a 32 bit application that is also able to run on 64 bit operating systems.

By using Microsoft Click Once technology, the application can be easily distributed to any Client-PC.

### Note on installation for efficient support by Babtec staff:

Babtec software is developed and tested on English and German operating system environments. For comprehensive support and product assistance, we recommend the use of English or German operating system environments, as well as English SQL Server versions.

Our support is available to our customers in German and English. Support in other languages, as well as regionalized server operating systems, cannot be guaranteed, or only to a limited extent.

### Important note about domain controllers:

Domain controllers are the central instance of your IT infrastructure, on which countless systems and services depend. For security and stability reasons, we do not perform installations of Babtec services, third-party programs, database services or Windows own services on server systems that are used as domain controllers.

Please understand that our employees are not permitted to perform work on such servers.

## 1.1 Operating Systems

You can use BabtecQ on computers running any of the following operating systems:

- Windows 11
- Windows 10
- Windows Server 2022
- Windows Server 2019
- Windows Server 2016

### Note on the .Net Framework:

BabtecQ requires an installed version of .Net Framework 4.7.2 (or higher) for both Babtec Client and Babtec Server installations.

### Note on the use of Windows Server 2012:

Experience has shown that BabtecQ can be operated under Windows Server 2012 without any restrictions. However, this is not checked as part of our quality assurance.

## 1.2 Hardware Requirements for Business Server

<p>Minimum requirements<sup>1</sup></p>	<ul style="list-style-type: none"> <li>▪ Current Intel Core i5 or XEON processor with 4 cores, from 3.0 GHz or comparable CPU generation e.g. from AMD</li> <li>▪ 6 GB RAM or more</li> <li>▪ 20 GB free disk space to install the software</li> </ul>
<p>Recommended hardware<sup>2</sup></p>	<ul style="list-style-type: none"> <li>▪ Current Intel Core i7 or XEON processor with 6 cores, from 3.4 GHz or comparable CPU generation e.g. from AMD</li> <li>▪ 8 GB RAM or more</li> <li>▪ 20 GB free disk space to install the software</li> </ul>

## 1.3 Hardware Requirements for Client Workstations

<p>Minimum requirements<sup>1</sup></p>	<ul style="list-style-type: none"> <li>▪ Current Intel Core i3 or XEON processor with 4 cores, from 3.0 GHz or comparable CPU generation e.g. from AMD</li> <li>▪ 4 GB RAM or more</li> <li>▪ 1 GB free disk space to install the software</li> </ul>
<p>Recommended hardware<sup>2</sup></p>	<ul style="list-style-type: none"> <li>▪ Current Intel Core i5 or XEON processor with 4 cores, from 3.0 GHz or comparable CPU generation e.g. from AMD</li> <li>▪ 8 GB RAM or more</li> <li>▪ 1 GB free disk space to install the software</li> </ul>

<sup>1</sup> This is the basic configuration that enables you to run the software.

<sup>2</sup> In this configuration the smooth operation of the software can be guaranteed.

## 1.4 Databases

The following databases are currently supported by BabtecQ software:

### Microsoft:

- SQL Server 2019 (Standard and Enterprise)
- SQL Server 2017 (Standard and Enterprise)
- SQL Server 2016 (Standard and Enterprise)

Please note for the SQL Server instance that the server sorting is set to "Case Insensitive" in the server properties.

### Note on Microsoft SQL Server licensing:

Both BabtecQ license types "Basic" and "Pro" are floating licenses. According to Microsoft's licensing terms, you need a core-based licensing for your SQL Server in this case.

### Oracle:

- Oracle 19c
- Oracle 18c

Please note that in Oracle the Babtec user for the access to the BabtecQ data base requires DBA (database-administrator) user rights.

For servers running Microsoft data bases, you can use the following system requirements as a guideline.

### **Windows-Server running Microsoft SQL Server 2019 / 2017 / 2016:**

As a Microsoft Gold Partner, we recommend the following system requirements<sup>3</sup>:

- Current Intel Core i7 or XEON processor with 4 cores or more, 3.4 GHz or higher or comparable CPU generation e.g. from AMD
- 8 GB RAM or more
- Operating system according to the requirements of the respective SQL Server version
- 20 GB free disk space or more

As always please consult your project manager about the exact system requirements for your individual project.

### Please note:

If you are running BabtecQ Server and the data base on the same machine, please note that the system requirements add up. We recommend installing on separate systems for scaling purposes.

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<sup>3</sup> Please note: If you run Microsoft SQL Server Reporting Services, you will have to additionally heed Microsoft's own system requirements for those products (see also chapter 2).

## 1.5 Requirements for BabtecQ Go

The browser-based frontend BabtecQ Go requires that at least .Net Framework 4.7.2 is installed on the Babtec server.

BabtecQ Go can be used with the following browsers<sup>4</sup>:

- Microsoft Edge
- Google Chrome
- Firefox

## 1.6 Requirements for Babtec.AT (Audit Trail)

The system wide Audit Trail requires the use of SQL Server Enterprise Edition for BabtecQ, with two databases - one database each for the live system and the Audit Trail data. The methods to log changes in Audit Trail are certified by Microsoft. These methods are a part of the features of the Enterprise Edition or from SQL Server 2016 SP1 of the Standard Edition.

## 1.7 Requirements for Babtec.DS (Digital signature for BabtecQ - reports in PDF Format)

In order to generate and sign PDF files, you will need the software module Babtec.DS (including pdfMachine by Broadgun Software GbR) release 13.97 or 14.32).

## 1.8 Microsoft ClickOnce

For the distribution of software you can use Microsoft ClickOnce. For ClickOnce the use of Microsoft Edge<sup>5</sup> is recommended.

## 1.9 Sending e-mails

In order to send e-mails from within your BabtecQ system, you will need a MAPI capable e-mail system.

## 1.10 Babtec.Q.Agent

The Q.Agent is a service that runs on the BabtecQ Business Server. In order to send e-mail, a SMTP capable e-mail server is required.

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<sup>4</sup> All software publishers recommend keeping the browsers always up to date.

<sup>5</sup> Microsoft recommends keeping the browser versions always up to date.

## 1.11 Babtec.Q.Manager

To run the Q.Manager, you will need the following components:

- Client<sup>6</sup>:
  - Microsoft Edge
  - Firefox
  - Safari
  - Google Chrome
  
- Server: Internet Information Services (IIS) version 7 or higher

## 1.12 Babtec.Q.Analyzer

To run the Q.Analyzer, you will need the following components:

- Reporting Services as a part of Microsoft SQL Server 2016, SQL Server 2017 or SQL Server 2019 with integrated Web Server
- Microsoft SQL Server 2016, SQL Server 2017, SQL Server 2019
- Microsoft Edge<sup>7</sup>
- SMTP e-mail server (optional for subscription functionalities)

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<sup>6</sup> All software publishers recommend keeping the browsers always up-to-date.

<sup>7</sup> Problems with the configuration may not be excluded. The reports can be used.

## 2 BabtecQ in other server environments

The multitude of combination and configuration possibilities for hardware and software enable you to use the BabtecQ Client in additional server environments. The prerequisites for operating BabtecQ described in the first chapter still apply here, e.g. with regard to the permitted operating systems.

The use of the BabtecQ Server on Citrix Servers or Microsoft Remote Desktop Services can lead to interference because of competing access requests and therefore is not advisable.

**For the requirements of remote desktop servers for your individual application, please contact your provider of the corresponding technology.**

### 2.1 BabtecQ in Microsoft Remote Desktop environments

As a .Net-based application, BabtecQ runs on every platform where .Net Framework 4.7.2 can be run. Furthermore, BabtecQ also integrates some applications by third party manufacturers that are not based on .Net. Problems or restrictions in Remote Desktop Services environments are not known. The BabtecQ Client is qualified to run in Remote Desktop Services environments. The BabtecQ Server is not approved for operation in a Remote Desktop Services environment.

Please note:

BabtecQ is not distributed to the clients by Application Streaming.

Note for connecting video cameras:

Most common cameras are connected with USB to PCs. The USB streaming mode is used to display the live video feed in BabtecQ, which is not supported by existing Remote Desktop Services solutions. Hence this function cannot be used in BabtecQ.

Note for connecting multiplexers (measuring equipment interfaces):

If multiplexers (Steinwald, Bobe, Mitutoyo, etc.) are used, they are as a rule connected to the respective workstations with USB or RS232. There can be problems with the connection to the multiplexer, respectively the adoption of measured values, if the multiplexer is used at a workstation with software that is run on the PC through a Remote Desktop Services installation. The reason for this is the emulation of the respective client interface in the Remote Desktop session, since it can increase the latency of the RS232 or USB connection.



## 2.2 BabtecQ in Citrix environments

BabtecQ runs on every platform where .Net Framework 4.7.2 can be run. Furthermore, BabtecQ also integrates some applications by third party manufacturers that are not based on .Net. Problems or restrictions according in Citrix environments are not known. The [BabtecQ Client](#) is qualified to run in Citrix environments. The [BabtecQ Server](#) is not approved for operation in Citrix environments.

Please note the system requirements from Citrix.

Note for connecting video cameras:

Please note [2.1 BabtecQ in Microsoft Remote Desktop environments](#).

Note for connecting multiplexers (measuring equipment interfaces):

Please note [2.1 BabtecQ in Microsoft Remote Desktop environments](#).

## 2.3 BabtecQ in Microsoft Hyper-V environments

BabtecQ runs on every platform where .Net Framework 4.7.2 can be run. Furthermore, BabtecQ also integrates some applications by third party manufacturers that are not based on .Net. Problems or restrictions in Hyper-V environments are not known. The BabtecQ Server is suitable for operation in Hyper-V environments.

Note for dynamic allocation of resources:

The specified minimum requirements within [1.2 Hardware Requirements for Business Server](#) must be assigned as locked to the virtual machine. Further resources can be allocated by dynamic-parameters. Generally, we recommend the static allocation of random access memory. Dynamization always involves the risk of performance losses.

## 2.4 BabtecQ in VMware environments

BabtecQ runs on every platform where .Net Framework 4.7.2 can be run. Furthermore, BabtecQ also integrates some applications by third party manufacturers that are not based on .Net. Problems or restrictions in VMware environments are not known. The BabtecQ Server is suitable for operation in VMware environments.

Note for dynamic allocation of resources:

Please consider the note within [2.3 BabtecQ in Microsoft Hyper-V environments](#).