

System Requirements

SCHEMA ST4

Edition

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Colophon

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1 Change Information About This Document

1.1 Changes since July 27, 2017

You get an overview here about the changes since the previous version of this document for SCHEMA ST4 Version 2017/ Date: 07/27/2017.

Component	Previous Version	Current Version
Supported Languages	Availability of the user interface in English and German	Extension: User interface is available in English, German, French and Japanese.
Operating Systems, Servers, Clients and Databases	Detailed information about supported third-party software versions	Replacement: Detailed information about supported versions can be found in the Third-Party Software for SCHEMA ST4 document. The system requirements only contain the minimum version.
.NET Framework on Servers and on Clients	Microsoft .NET Framework version 4.6.1 and 4.7	Discontinuation: Support of the versions before version 4.7.2 is being discontinued.
Server	Requirements for the network speed	Extension: Information about ports that have to be open: <ul style="list-style-type: none"> ■ From servers to clients inside the same domain all local ports higher than 1024 and ■ From clients to servers the port range 6790-6799, 6800 and 6819. This is valid for the default configuration. The port range used can also be configured.

Component	Previous Version	Current Version
Server	System requirements for the DocuWeb Server as base for the SlimClient Reviewer and the DocuWeb Clients	Addition: System requirements for the SlimClient Reviewer Service since the SlimClient Reviewer is not based on the DocuWeb Server anymore.
	Contains system requirements for the ADX Server	Discontinuation: The support of the ADX Server is being discontinued since the SlimClient Reviewer accesses the Workflow Services directly.
	Contains system requirements for the Publishing Connector	Discontinuation: Support of the Publishing Connector is being discontinued. Therefore it is not possible anymore to produce InDesign on the server.
	Contains system requirements for the Workflow Server	Replacement: The Workflow Server is replaced by the Workflow Services. These are hosted in the Application Server and therefore are not listed separately anymore.
Server Operating Systems	In addition to other Windows Server versions: 2008 R2	Discontinuation: Support of this version is being discontinued.

Component	Previous Version	Current Version
Font on Clients and Production Servers	Arial Unicode MS	<p>Replacement:</p> <p>Installation of Arial Unicode MS is not required anymore.</p> <p>The Microsoft Sans Serif font is used.</p> <p>Japanese user interface and/or content creation: MS PGothic</p> <p>Chinese user interface and/or content creation: Microsoft YaHei and Microsoft JhengHei</p> <p>Corean content creation: Malgun Gothic</p> <p>All required fonts are currently contained in the Windows operating systems by default.</p>
Databases	In addition to other MS SQL Server versions: 2008 R2	Discontinuation: Support of this version is being discontinued.
	Notices about the required Oracle settings: Option XML-DB and character set UTF8	<p>Extension:</p> <p>The notices were replaced by a supplemented list with the required Oracle settings.</p> <ul style="list-style-type: none"> ■ Option XML-DB, ■ Character set UTF8 and ■ Amount of sessions 600 to 800. <p>In addition for user-defined configurations: ODAC client in the same version as the Oracle Server</p>

Component	Previous Version	Current Version
Databases	No information about the required settings for MS SQL Server	Addition: List of the required settings <ul style="list-style-type: none"> ■ As network protocol TCP/IP and Shared Memory are enabled. ■ SQL Server and Windows authentication mode is set as server authentication mode.
Installation on Terminal Server	In addition to other terminal services: Remote Desktop Services on Windows Server 2008 R2	Discontinuation: Support of this version is being discontinued.
Basic software for the DocuWeb Server	Only one supported browser and DocuWeb Server	Addition: If you want to see and use callout graphics in the DocuWeb you additionally need the C++ Redistributable for Visual Studio 2013 (64-bit version).
Supported browsers for the DocuWeb Server and the SlimClient Reviewer	Besides other browsers: Mozilla Firefox (Version 40 or higher)	Discontinuation: Support of the versions before version 59 is being discontinued.
	Besides other browsers: Google Chrome (Version 44 or higher)	Discontinuation: Support of versions before version 66 is being discontinued.
Supported browsers for the DocuWeb Translator	Internet Explorer 11	Discontinuation: Support of this version is being discontinued. As a browser Edge is newly supported.
Editors	In addition to other versions and editors: <ul style="list-style-type: none"> ■ XMetaL 10.0 and ■ FrameMaker 11 	Discontinuation: Support of these versions is being discontinued.

Component	Previous Version	Current Version
Editors	Font Mincho for FrameMaker as Editor	Deletion: Font Mincho for FrameMaker is not required anymore.
	Notice about the subscription Office 365	Replacement: The notice was deleted. Instead Office 365 with Word 2016 was added as version.
	Additional Required Software for Microsoft Word as Editor: Visual Studio 2010 Tools for Office Runtime 4	Replacement: Visual Studio 2010 Tools for Office Runtime This is the current required version.
Supported Software for Productions	In addition to other software and other versions: ■ FrameMaker 11	Discontinuation: Support of FrameMaker 11 is being discontinued.
	No Notice about the Fonts Used in Productions	Addition: Notice that layouts may be using non-installed fonts.
	Notice about the subscription Office 365	Replacement: The notice was deleted. Instead Office 365 with Word 2016 was added as version.
	Besides other software: ■ Microsoft Word	Constraint: Server-side productions require the 64-bit version.
	Font Mincho for Productions to FrameMaker	Deletion: Font Mincho for FrameMaker is not required anymore.
	Mozilla Firefox (Version 40 or higher)	Discontinuation: Support of the versions before version 59 is being discontinued.

Component	Previous Version	Current Version
Supported Software for Productions	Google Chrome (Version 44 or higher)	Discontinuation: Support of versions before version 66 is being discontinued.
System Limits	Number of possible SCHEMA ST4 objects was limited to 2 ⁵⁶ (72,057,594,037,927,936).	Constraint: Number was limited to 35 trillion (35,000,000,000,000).

1.2 Changes since May 12, 2017

You get an overview here about the changes since the penultimate version of this document for SCHEMA ST4 Version 2017 SP1 / Date: 05/12/2017.

Component	Previous Version	Current Version
Server	Contains Secondary Server system requirements	Secondary Server system requirements are deleted.
.NET Framework on Servers and on Clients	Microsoft .NET Framework version 4.6.1 or higher	Constraint: Microsoft .NET Framework version 4.6.1 and 4.7
Terminal Services	In addition to other supported terminal services Citrix XenApp in versions: <ul style="list-style-type: none"> ■ 7.5 and ■ 7.12. 	Additionally supported version: 7.14
Editors	XMetaL 12 edition: Author Enterprise	Newly supported XMetaL 12 edition: Author Essential

2 Introduction

This module contains the system requirements for SCHEMA ST4 and ST4 DocuManager.

You can license SCHEMA ST4 as Basic Line, Standard, Enterprise and Data Center variant. The corresponding system requirements apply to all variants. The system requirements also depend on the following parameters:

- Number of users,
- Database used and
- Additional software used.

The following chapters contain the detailed system requirements for the components of the SCHEMA ST4 / ST4 DocuManager client/server variant. If you want to install several server and/or client components on one computer, you must add up the requirements accordingly.

TIP

Installation on Virtual Machines

SCHEMA ST4 also runs on common virtual environments.

You have to customize your hardware equipment according to the recommendations of the respective manufacturer. The system requirements for SCHEMA ST4 apply to the host operating systems.

Supported Languages

The SCHEMA ST4 user interface is available in the following languages:

- German,
- English,
- French and
- Japanese.

The clients have been tested on operating systems of the same language and have been optimized regarding the display. Therefore the user interface language should be the same as the operating system language. Otherwise the installation can be carried out on English or German operating systems.

3 Recommendations

The following three tables present example scenarios for SCHEMA ST4.

They provide an overview of the values which we recommend as installation requirements for the servers of the SCHEMA ST4 family in combination with the databases. But SCHEMA ST4 supports more systems and configurations. In the following tables you find further software, operating systems and databases currently supported.

A complete list of all supported external program can be found in the Third-Party Software for SCHEMA ST4 document. You can obtain this document from us at Releases. Furthermore, you will find the document in the Customer area on our website.

You can combine the Basic Line and Standard variants with all supported databases.

Parts of the database contents can also be stored in the file system in order to reduce the size of the database.

3.1 Basic Line up to 5 Users

Hardware	Component	Software	Operating System
Processor: 1 CPU 64-bit Quad-Core RAM: At least 8 GB Hard disk space: 80 GB	SCHEMA ST4 Application Server	Microsoft .NET Framework	Windows Server 2012 R2 (Edition: Standard or Datacenter)
	SCHEMA ST4 Search Services	Version 4.7.2	
	Database	Microsoft SQL Server 2016 with SP1 (Edition: Standard)	

3.2 Standard up to 15 Users

Hardware	Component	Software	Operating System
Processor: 1 CPU 64-bit Quad-Core RAM: 16 GB Hard disk space: 160 GB	SCHEMA ST4 Application Server	Microsoft .NET Framework	Windows Server 2012 R2 (Edition: Standard or Datacenter)
	SCHEMA ST4 Search Services	Version 4.7.2	
	SCHEMA ST4		

Hardware	Component	Software	Operating System
Processor: 1 CPU 64-bit Quad-Core RAM: 16 GB Hard disk space: 160 GB	Database	Oracle 12c (64-bit version Edition: Standard, Enterprise) -or- Microsoft SQL Server 2016 with SP1 (Edition: Standard, Enterprise)	Windows Server 2012 R2 (Edition: Standard or Datacenter)

3.3 Enterprise up to 50 Users

Hardware	Component	Software	Operating System
Processor: 2 CPU 64-bit Quad-Core RAM: 32 GB Hard disk space: 160 GB	SCHEMA ST4	Microsoft .NET Framework Version 4.7.2	Windows Server 2012 R2 (Edition: Standard or Datacenter)
	Application Server		
	SCHEMA ST4		
	Search Services		
	SCHEMA ST4		
	Database	Oracle 12c (64-bit version Edition: Standard, Enterprise) -or- Microsoft SQL Server 2016 with SP1 (Edition: Standard, Enterprise)	

4 Server System Requirements

The following tables provide an overview of the installation requirements for all server components of SCHEMA ST4.

All SCHEMA ST4 components require the Application Server as the basis.

You can license SCHEMA ST4 as Basic Line, Standard, Enterprise and Data Center variant. The following system requirements apply to all variants.

The system requirements depend on the following parameters:

- Number of users,
- Database used and
- Additional software used.

⚠ CAUTION

The Details Represent the Minimum Requirements

All the information consists of minimum requirements which SCHEMA recommends on the basis of experience.

ⓘ NOTICE

Current Manufacturer Specifications

The current manufacturer specifications also apply to the installation requirements for third-party products.

1. Refer also to the current manufacturer's documentation.

ⓘ NOTICE

Installing Several Components on One Computer

If you want to install several SCHEMA ST4 server and/or client components on one computer or if you want to install the database on the same computer, you must add up the required capacities (RAM and hard disk) accordingly.

Network Requirements

Connected Components	Type of Network	Data Throughput	Latency
Server - Clients	LAN	At least 10 MBit/s Recommended 100 MBit/s	Maximum 10 ms Recommended 3ms or less
Server - Server	In a LAN segment (without an intermediary router)	At least 1 GBit/s	Less than 1ms
Server - Database			

Ports

Additionally the following port ranges have to be open:

- From servers to clients inside the same domain all local ports higher than 1024 and
- From clients to servers the port range 6790-6799, 6800 and 6819.

This is valid for the default configuration. The port range used can also be configured.

ⓘ NOTICE

Slow or Distributed Network

If your infrastructure does not meet the network requirements, you cannot work efficiently with SCHEMA ST4.

1. Please contact SCHEMA.

4.1 Application Server, Search Services und Workflow Services

The Application Server and the Search Services are installed on one server computer. The Workflow Services are also part of the Application Server. Therefore you find the combined requirements here.

Hardware

Hardware	per 25 users
RAM	8 GB
CPU	1 CPU 64-bit Quad-Core
Hard Disk Space	At least 100 GB

Depending on the data volume and configuration SCHEMA ST4 may need much more storage memory.

⚠ CAUTION

Too Little Hard Disk Memory Prevents Correct Search

The ST4 Search Services need available hard disk memory for the creation of search indices. The hard disk memory must be present on the server on which the ST4 server and the ST4 Search Services are running. When not enough hard disk memory is available on the server, indexing will fail.

1. Check whether there is enough memory space in the directory. The amount of free hard disk memory must be approximately 60% of the database size.
2. Select a suitably large directory in the ST4 Configuration Wizard when installing or updating.
3. If too little disk space is available, increase the disk space.

ⓘ NOTICE**Slow Hard Disk Access Decelerates Search**

The access speed to the local hard disk memory influences the performance of indexing and search. Slow hard disk access strongly decelerates the search.

1. Use a local directory on the server to save the search indices. Select this directory via the **ST4 Configuration Wizard**.
2. When the search is too slow use an SSD hard disk for saving the search indices.

Operating System

Operating System	Minimum Version	Software	Minimum Version
Windows Server (Edition: Foundation Essentials, Standard or Datacenter)	2012	Microsoft .NET Framework	4.7.2
		With updates: SCHEMA ST4	2014 SP2
		For indexing of the document nodes: Microsoft Filter Pack for DOC, DOCX, XLS, XLSX, PPT and PPTX files	2010

ⓘ NOTICE**Not Supported Language Settings Prevent System from Starting**

Windows can contain different language packages. Here the culture represents the distinction of a language which comprises specialities for countries or regions. If a client operating system uses a culture that is not supported by the server computer the client cannot be started.

1. Install the same language packages on client and server computers.

The named minimum versions are supported. This does not mean that all higher versions are supported as well. You find further detailed information about the supported versions from third-party suppliers in the Third-Party Software for SCHEMA ST4 document. You will find this document in the customer area of our website <http://www.schema.de>.

4.2 Publishing Server

Hardware

Hardware	5 simultaneous productions
RAM	4 GB
CPU	1 CPU 64-bit Quad-Core

Hardware	5 simultaneous productions
Hard Disk Space	At least 100 GB

ⓘ NOTICE

Antenna House Licensing Model

Up till now you need one server license for each CPU if you use the Antenna House XSL Formatter on the Publishing Server.

Please observe Antenna House's current licensing model.

Operating System and Software

Operating System	Minimum Version	Software	Minimum Version
Windows Server	2012	Microsoft .NET Framework	4.7.2
		HTMLHelp production: MS HTML Help Workshop	1.3
		You need more software on the client computer depending on production.	

The named minimum versions are supported. This does not mean that all higher versions are supported as well. You find further detailed information about the supported versions from third-party suppliers in the Third-Party Software for SCHEMA ST4 document. You will find this document in the customer area of our website <http://www.schema.de>.

See also

📖 Editors and Software for the Production [▶ 30]

4.3 Automated Publishing Extension

Hardware

Hardware	
RAM	2 GB
CPU	1 CPU 64-bit Quad-Core
Hard Disk Space	At least 100 GB

ⓘ NOTICE**Antenna House Licensing Model**

Up till now you need one server license for each CPU if you use the Antenna House XSL Formatter on the Publishing Server.

Please observe Antenna House's current licensing model.

Operating System and Software

Operating System	Minimum Version	Software	Minimum Version
Windows Server	2012	Microsoft .NET Framework	4.7.2
		HTMLHelp production: MS HTML Help Workshop	1.3
		You need more software on the client computer depending on production.	

The named minimum versions are supported. This does not mean that all higher versions are supported as well. You find further detailed information about the supported versions from third-party suppliers in the Third-Party Software for SCHEMA ST4 document. You will find this document in the customer area of our website <http://www.schema.de>.

See also

📄 Editors and Software for the Production [▶ 30]

4.4 EAI Connector

Hardware

Hardware	
RAM	2 GB
CPU	1 CPU 64-bit Dual-Core
Hard Disk Space	At least 100 GB

Operating System and Software

ⓘ NOTICE**Antenna House Licensing Model**


Up till now you need one server license for each CPU if you use the Antenna House XSL Formatter on the Publishing Server.

Please observe Antenna House's current licensing model.

Operating System	Minimum Version	Software	Minimum Version
Windows Server	2012	Microsoft .NET Framework	4.7.2
		Depending on the use	

The named minimum versions are supported. This does not mean that all higher versions are supported as well. You find further detailed information about the supported versions from third-party suppliers in the Third-Party Software for SCHEMA ST4 document. You will find this document in the customer area of our website <http://www.schema.de>.

See also

 Editors and Software for the Production [▶ 30](#)

4.5 COTI Server

Hardware

Hardware	
RAM	4 GB
CPU	1 CPU 64-bit Quad-Core
Hard Disk Space	At least 100 GB

Operating System and Software

Operating System	Minimum Version	Software	Minimum Version
Windows Server (Edition: Foundation Essentials, Standard or Datacenter)	2012	Microsoft .NET Framework	Version 4.7.2

The named minimum versions are supported. This does not mean that all higher versions are supported as well. You find further detailed information about the supported versions from third-party suppliers in the Third-Party Software for SCHEMA ST4 document. You will find this document in the customer area of our website <http://www.schema.de>.

4.6 DocuWeb Server

Hardware

Hardware	For every 3 simultaneous users
RAM	1 GB

Hardware	For every 3 simultaneous users
CPU	1 CPU 64-bit Dual-Core
Hard Disk Space	At least 40 GB

ⓘ NOTICE

HTTPS as Communication Protocol Demands Reverse Proxy

The DocuWeb Server and the SlimClient Reviewer use HTTP as the communication protocol by default. Communications via HTTPS can take place only with the aid of a reverse proxy (e.g. via Microsoft IIS with Application Request Routing Module).

1. If you want to use the HTTPS communication protocol, set up a reverse proxy for the respective server.
2. Contact our hotline if problems arise when setting up the reverse proxy.

Operating System and Software

Operating System	Minimum Version	Software	Minimum Version
Windows Server (Edition: Foundation Essentials, Standard or Datacenter)	2012	Microsoft .NET Framework	Version 4.7.2

The named minimum versions are supported. This does not mean that all higher versions are supported as well. You find further detailed information about the supported versions from third-party suppliers in the Third-Party Software for SCHEMA ST4 document. You will find this document in the customer area of our website <http://www.schema.de>.

4.7 SlimClient Reviewer Service

Hardware

Hardware	For every 3 simultaneous users
RAM	1 GB
CPU	1 CPU 64-bit Dual-Core
Hard Disk Space	At least 40 GB

ⓘ NOTICE

HTTPS as Communication Protocol Demands Reverse Proxy

The DocuWeb Server and the SlimClient Reviewer use HTTP as the communication protocol by default. Communications via HTTPS can take place only with the aid of a reverse proxy (e.g. via Microsoft IIS with Application Request Routing Module).

1. If you want to use the HTTPS communication protocol, set up a reverse proxy for the respective server.
2. Contact our hotline if problems arise when setting up the reverse proxy.

Operating System and Software

Operating System	Minimum Version	Software	Minimum Version
Windows Server (Edition: Foundation Essentials, Standard or Datacenter)	2012	Microsoft .NET Framework	Version 4.7.2

The named minimum versions are supported. This does not mean that all higher versions are supported as well. You find further detailed information about the supported versions from third-party suppliers in the Third-Party Software for SCHEMA ST4 document. You will find this document in the customer area of our website <http://www.schema.de>.

5 Database System Requirements

The following sections provide an overview of the supported databases, operating systems and of the requirements concerning hard- and software for database computers for SCHEMA ST4.

ⓘ NOTICE

Current Manufacturer Specifications

The current manufacturer specifications also apply to the installation requirements for third-party products.

1. Refer also to the current manufacturer's documentation.

ⓘ NOTICE

Database Computer has a Great Influence on Performance

The I/O performance of the database computer has a great influence on the performance of SCHEMA ST4.

1. On the database computer, use RAID memory systems with multiple disks and dedicated controllers for the database disk and the operating system disk.

See also

📖 Recommendations [▶ 13]

5.1 Supported Databases

Parts of the database contents can also be stored in the file system in order to reduce the size of the database.

If the database runs on the same computer as the SCHEMA ST4 servers, you must add up the necessary capacities accordingly.

Supported Oracle
Databases

Version
Oracle 11g (Release 2 - Edition: Standard, Enterprise)
Oracle 12c (Edition: Standard, Enterprise)

Supported Microsoft
SQL Servers

Lowest Supported Version	up to 5 users	up to 15 users	up to 500 users
Microsoft SQL Server 2012 (with SP2)	✓	✓	✓

Lowest Supported Version	up to 5 users	up to 15 users	up to 500 users
Microsoft SQL Server 2012 Express with Advanced Services (with SP2)	✓	✓	-

The named minimum versions are supported. This does not mean that all higher versions are supported as well. You find further detailed information about the supported versions from third-party suppliers in the Third-Party Software for SCHEMA ST4 document. You will find this document in the customer area of our website <http://www.schema.de>.

5.2 Operating Systems, Hardware and Software

Hardware

Hardware	up to 5 users	up to 15 users	up to 500 users
RAM	At least 4 GB	8 GB	16 GB
CPU	1 CPU 64-bit Dual-Core	1 CPU 64-bit Dual-Core	1 CPU 64-bit Quad-Core
Hard Disk Space	40 GB	80 GB	150 GB

By default, SCHEMA ST4 supports databases on the following operating systems:

Operating System and Software

Operating System	Minimum Version	Software	Minimum Version
Windows Server (Edition: Foundation Essentials, Standard or Datacenter)	2012	Microsoft .NET Framework	Version 4.7.2

The named minimum versions are supported. This does not mean that all higher versions are supported as well. You find further detailed information about the supported versions from third-party suppliers in the Third-Party Software for SCHEMA ST4 document. You will find this document in the customer area of our website <http://www.schema.de>.

However, you can also set up the SCHEMA ST4 database on other operating systems. If you want to install Oracle on an operating system not supported by default, please contact SCHEMA Holding GmbH.

6 Client System Requirements

Following you will find the system requirements for the various SCHEMA ST4 clients. The requirements vary, depending on whether you intend to perform a standard installation or install the clients on a terminal server.

You also need additional software, depending on the selected editor and your production interface.

⚠ CAUTION

The Details Represent the Minimum Requirements

All the details are minimum requirements which we recommend on the basis of experience.

ⓘ NOTICE

Current Manufacturer Specifications

The current manufacturer specifications also apply to the installation requirements for third-party products.

1. Refer also to the current manufacturer's documentation.

ⓘ NOTICE

Installing Several Components on One Computer

If you want to install several SCHEMA ST4 server and/or client components on one computer or if you want to install the database on the same computer, you must add up the required capacities (RAM and hard disk) accordingly.

6.1 Architect, Designer, Rich and Thin Client

These system requirements also apply to all clients of the SCHEMA ST4 Basic Line, Standard, Enterprise and Data Center variant.

Network Requirements

Connected Components	Type of Network	Data Throughput	Latency
Server - Clients	LAN	At least 10 MBit/s Recommended 100 MBit/s	Maximum 10 ms Recommended 3ms or less

Ports

Additionally the following port ranges have to be open:

- From servers to clients inside the same domain all local ports higher than 1024 and
- From clients to servers the port range 6790-6799, 6800 and 6819.

This is valid for the default configuration. The port range used can also be configured.

ⓘ NOTICE

Slow or Distributed Network
 If your infrastructure does not meet the network requirements, you cannot work efficiently with SCHEMA ST4.
 1. Please contact SCHEMA.

Hardware

Hardware	
RAM	At least 1024 MB Recommended: 2 GB
CPU	1 CPU 64-bit Dual-Core
Hard Disk Space	At least 750 MB + Disk space for produced outputs

Operating System

Operating System	Minimum Version
Windows	7 with SP1 (Edition: Ultimate, Professional or Enterprise)

ⓘ NOTICE

Same Version of .NET Framework
 Before installing the client, the same version of .NET Framework must be installed on all computers on which server-end or client-end components of SCHEMA ST4 are installed.

Software

Software	Minimum Version
Microsoft .NET Framework	4.7.2
Internet Explorer	10
Fonts	Microsoft Sans Serif Japanese user interface and/or content creation: MS PGothic Chinese user interface and/or content creation: Microsoft YaHei and Microsoft JhengHei Corean content creation: Malgun Gothic All required fonts are currently contained in the Windows operating systems by default.

Software	Minimum Version
If you want to automatically convert graphics: ImageMagick portable (ZIP file)	6.9
If you want to import Excel files: Microsoft Access Database Engine Redistributable	2010
C++ Redistributable for Visual Studio	2013 (64-bit version)
If you want to display EPS graphics: Ghostscript	8.56

The named minimum versions are supported. This does not mean that all higher versions are supported as well. You find further detailed information about the supported versions from third-party suppliers in the Third-Party Software for SCHEMA ST4 document. You will find this document in the customer area of our website <http://www.schema.de>.

6.2 DocuWeb Clients and SlimClient Reviewer

⚠ NOTICE

High Security Settings in Internet Explorer Block Work with ST4 DocuWeb and Preview in SCHEMA ST4

You cannot work with ST4 DocuWeb if you use high security settings in Internet Explorer. The high security settings prevent the preview in SCHEMA ST4. The viewlet **Quick View** uses Internet Explorer for displaying the preview.

You find Microsoft's recommendations under <http://support.microsoft.com/kb/885409/en>. In the introduction Microsoft recommends the high security settings only for exceptions.

1. Select medium security settings in Internet Explorer.

Hardware

Hardware	
RAM	At least: 512 MB Recommended 1024 MB
CPU	1 CPU 64-bit Dual-Core
Hard Disk Space	At least 750 MB

Operating System

Operating System	Minimum Version
Windows	7 with SP1 (Edition: Ultimate, Professional or Enterprise)

Basic Software

For DocuWeb Clients and SlimClient Reviewer you need a SCHEMA ST4 DocuWeb server and a supported browser.

DocuWeb (Reviewer) and SlimClient Reviewer	Lowest Version	DocuWeb (Translator)	Lowest Version
Internet Explorer	10	Internet Explorer	11
Microsoft Edge	for Windows 10		
Mozilla Firefox	40		
Google Chrome	44		

Tab. 1: Supported Browser

The named minimum versions are supported. This does not mean that all higher versions are supported as well. You find further detailed information about the supported versions from third-party suppliers in the Third-Party Software for SCHEMA ST4 document. You will find this document in the customer area of our website <http://www.schema.de>.

6.3 Installation on Terminal Server

If you want to install clients on a terminal server, the following system requirements apply.

ⓘ NOTICE

Installing Several Components on One Computer

If you want to install several SCHEMA ST4 server and/or client components on one computer or if you want to install the database on the same computer, you must add up the required capacities (RAM and hard disk) accordingly.

Network Requirements

	At least	Recommended
Bandwidth per SCHEMA ST4 Client	64 kbit	128 kbit

Hardware

Hardware	1-5 Clients	4-10 Clients
RAM	2 GB	4 GB
CPU	1 CPU 64-bit Dual-Core	1 CPU 64-bit Quad-Core
Hard Disk Space	40 GB	80 GB

Terminal Services

Software for Terminal Services	Minimum Version
Remote Desktop Services on Windows Server	2012
Citrix XenApp on an operating system supported by Citrix	7.5

⚠ NOTICE

Same Version of .NET Framework

Before installing the client, the same version of .NET Framework must be installed on all computers on which server-end or client-end components of SCHEMA ST4 are installed.

Software

Software	Minimum Version
Microsoft .NET Framework	4.7.2
Internet Explorer	10
Fonts	Microsoft Sans Serif Japanese user interface and/or content creation: MS PGothic Chinese user interface and/or content creation: Microsoft YaHei and Microsoft JhengHei Corean content creation: Malgun Gothic All required fonts are currently contained in the Windows operating systems by default.
If you want to automatically convert graphics: ImageMagick portable (ZIP file)	6.9
If you want to import Excel files: Microsoft Access Database Engine Redistributable	2010
C++ Redistributable for Visual Studio	2013 (64-bit version)
If you want to display EPS graphics: Ghostscript	8.56

The named minimum versions are supported. This does not mean that all higher versions are supported as well. You find further detailed information about the supported versions from third-party suppliers in the Third-Party Software for SCHEMA ST4 document. You will find this document in the customer area of our website <http://www.schema.de>.

6.4 Editors and Software for the Production

Depending on the editor interface selected, you need additional software to enter content with external editors.

You also need additional software, depending on the production modules in your client. The software must be present on the client computer you use for production.

The corresponding software has to be present on the server computer for productions via a Publishing Server [▶ 17] and server-based productions.

The following table provides an overview.

The named minimum versions are supported. This does not mean that all higher versions are supported as well. You find further detailed information about the supported versions from third-party suppliers in the Third-Party Software for SCHEMA ST4 document. You will find this document in the customer area of our website <http://www.schema.de>.

CAUTION

Unavailable Language Support on the Operating System and in Target Formats

Maybe the software of third-party manufacturers you use for production does not support all desired languages. Operating systems might also not implement all languages.

1. Check if your operating system displays all desired languages.
2. Check if the software you use for production displays all desired languages.
3. If possible make the missing language support available. Gather information about the correct procedure from the respective manufacturer.

CAUTION

Errors in Products of Other Manufacturers

The functionality of productions and editor interfaces depends on the third-party products used. These third-party products are subject to system restrictions over which SCHEMA has no influence. Errors may occur in the third-party products, which SCHEMA can neither anticipate nor rectify.

1. If errors occur in outputs, check whether these errors are caused by the software product of the third-party manufacturer.
2. Contact the respective manufacturer.

ⓘ NOTICE

Yearly Subscriptions Updates Can Install Unsupported Version

Office can be purchased with various license models. There are yearly subscriptions as Office 365.

SCHEMA ST4 also supports Office versions that are installed under this license model. Through Office 365 updates an unsupported version could be installed.

1. Check which Office version you installed with a yearly subscription.

Editors

Supported Editors	Minimum Version	Additionally Required
MS Word	2010 (with SP2) Office 365 with Word 2016	Visual Studio 2010 Tools for Office Runtime
FrameMaker	12	Visual C++ Redistributable Packages for Visual Studio 2013 x86 (32-bit-Version) Generally speaking, SCHEMA ST4 requires C++ Redistributable for Visual Studio 2013 (64-bit version) for some functions. The 32-bit version can and must be installed in parallel for FrameMaker.
XMetaL	11.0 Edition: Author Essential, Author Enterprise - English language version	-

Production

Production Software	Minimum Version	Additionally Required
Antenna House XSL Formatter	6.2 MR11	Acrobat Distiller or Ghostscript for the implementation of EPS graphics
FrameMaker	12	Visual C++ Redistributable Packages for Visual Studio 2013 x86 (32-bit-Version)
Google Chrome	66	-
InDesign CC	2014	-
Mozilla Firefox	59	-
MS HTMLHelp Workshop	from 1.3	-

Production Software	Minimum Version	Additionally Required
MS Help Viewer	1.x 2.x	-
MS Internet Explorer	from 10	-
MS Word	2010 (with SP2) (for server-side production 64-bit version)	-
	Office 365 with Word 2016 (for server-side production 64-bit version)	
PowerPoint	2010 (with SP2)	-

ⓘ NOTICE

Incorrect Typefaces and Layout Setting Lead to Faulty Characters

Layouts may use fonts that do not support Unicode in its entirety. It could also be that the fonts set in the layouts are not installed. Characters may be displayed incorrectly. This applies in particular for languages with non-Latin alphabet, e.g. Japanese or Chinese.

1. Check your productions in non-Latin typefaces after changes to your system. This is useful, for example, following updates of SCHEMA ST4 and after creating languages or layouts.
2. If the output produced is faulty, check the layout in Architect Client or in Designer Client.
3. If you wish to customize the layout, change the typeface used in Architect Client or in Designer Client. The typeface in the layout must support the characters in the respective language.
4. Install the missing font type on the production computer.
5. If problems arise, contact our hotline.

7 System Limits

The maximum number of SCHEMA ST4 objects is limited by the architecture of SCHEMA ST4-IDs to 35 trillions (35,000,000,000.000). In practice, the number of objects in SCHEMA ST4 may also be limited by the underlying relational databases. Please refer to the documentation of the relevant database manufacturers for details of these restrictions.

The maximum number of transactions is currently limited to 2^{63} (9,223,372,036,854,775,808).

⚠ CAUTION

Restrictions on the Size of Binary Large Objects (BLOBs)

When saving Binary Large Objects (BLOBs) such as images or videos and text objects (XML, text) in the database you must keep to a limit. Due to the buffer architecture, the maximum size of the BLOBs is limited to 128 MB in the following case:

- If you are using MS SQL Server in conjunction with the database provider MS SQL Provider for .NET.

No size limits are currently known with regard to saving BLOBs to the file system.

The number of clients is limited only by the available virtual memory space.

You can calculate the memory usage per client by means of the formula $24 \text{ KB} + 64 n \text{ B}$, where n is the number of subscriptions the client needs from objects used in the Viewlets.

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COMPLEX DOCUMENTS **MADE EASY.**