

# d.velop

System requirements for d.velop  
products (on-premises)

# Table of Contents

|                                                                                                                           |    |
|---------------------------------------------------------------------------------------------------------------------------|----|
| 1. System requirements for d.velop products (on-premises) .....                                                           | 3  |
| 1.1. Basic information about the application and manual .....                                                             | 3  |
| 1.2. Cross-product system requirements .....                                                                              | 3  |
| 1.2.1. Dependencies on the product life cycle of other manufacturers .....                                                | 3  |
| 1.2.2. Hardware requirements for d.velop server applications .....                                                        | 4  |
| 1.2.3. Operating systems for d.velop server applications .....                                                            | 4  |
| 1.2.4. Hardware requirements for d.velop client applications .....                                                        | 5  |
| 1.2.5. Operating systems for d.velop integrating applications .....                                                       | 5  |
| 1.2.6. Database management systems .....                                                                                  | 5  |
| 1.2.7. SAP .....                                                                                                          | 6  |
| 1.2.8. ....                                                                                                               | 6  |
| 1.2.9. TCP/IP ports .....                                                                                                 | 6  |
| 1.2.10. Web browser .....                                                                                                 | 6  |
| 1.2.11. Certificate .....                                                                                                 | 7  |
| 1.2.12. Groupware .....                                                                                                   | 7  |
| 1.2.13. Microsoft Office .....                                                                                            | 8  |
| 1.2.14. Microsoft components .....                                                                                        | 8  |
| 1.2.15. Screen readers .....                                                                                              | 8  |
| 1.3. Suggested configurations of d.velop documents .....                                                                  | 8  |
| 1.3.1. Notes on configuration suggestions .....                                                                           | 8  |
| 1.3.2. Small – up to 100 concurrent users .....                                                                           | 10 |
| 1.3.3. Medium – 100 to 500 concurrent users .....                                                                         | 11 |
| 1.3.4. Medium – 100 to 500 concurrent users plus redundancy (high availability of<br>the application server) .....        | 12 |
| 1.3.5. Large – more than 500 concurrent users .....                                                                       | 13 |
| 1.3.6. Large – more than 500 concurrent users plus redundancy (high availability of<br>application and web servers) ..... | 14 |
| 1.4. Additional system requirements for individual applications .....                                                     | 15 |
| 1.5. Notes on the handling of virus scanners .....                                                                        | 20 |
| 1.6. Additional information sources and imprint .....                                                                     | 21 |

# 1. System requirements for d.velop products (on-premises)

## 1.1. Basic information about the application and manual

This manual is intended for administrators who want to install and update d.velop products (on-premises).

The manual provides you with general information about the prerequisites (e.g. hardware and database systems) and about installing the latest version from your channel. Please consider that the selection of the channel always refers to your entire d.velop system environment. Mixed operation of software versions from Annual and Current channels is not possible.

## 1.2. Cross-product system requirements

This page provides a comprehensive overview of the system requirements for installing on-premises products from d.velop AG. These requirements apply to all d.velop products.

### Note

Note that the only way to ensure that the modules included in d.velop documents are compatible with each other is by using the same version. For example, modules from a "Current" version in d.velop software manager are not compatible with modules from the "Annual" version.

d.velop AG conducts quality assurance tests at operating system level. Special hardware tests and certification processes are not performed, neither on physical hardware nor on virtual hardware (VMware, Hyper-V, etc.). For the operation of d.velop products, d.velop assumes that the operating system on the hardware used is working optimally.

On this page, you can find information about the following topics.

- [Dependencies on the product life cycle of other manufacturers](#)
- [Hardware requirements for d.velop server applications](#)
- [Operating systems for d.velop server applications](#)
- [Hardware requirements for d.velop client applications](#)
- [Operating systems for d.velop integrating applications](#)
- [Database management systems](#)
- [SAP](#)
- [TCP/IP ports](#)
- [Web browser](#)
- [Certificate](#)
- [Groupware](#)
- [Microsoft Office](#)
- [Microsoft components](#)
- [Screen readers](#)

### 1.2.1. Dependencies on the product life cycle of other manufacturers

d.velop only supports system versions that are also supported by the system manufacturers. If the support of the manufacturer ends, the support of d.velop AG for this system ends as well. Support is usually provided until the extended support end date. You can find the information here:

| Manufacturer | Further information                                                                                                                                                                                                                                                                                                                                |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Microsoft    | <a href="https://docs.microsoft.com/de-de/lifecycle/products/">https://docs.microsoft.com/de-de/lifecycle/products/</a>                                                                                                                                                                                                                            |
| Citrix       | <a href="https://www.citrix.com/de-de/support/product-lifecycle/product-matrix.html">https://www.citrix.com/de-de/support/product-lifecycle/product-matrix.html</a>                                                                                                                                                                                |
| Oracle       | <a href="https://www.oracle.com/us/assets/lifetime-support-technology-069183.pdf">https://www.oracle.com/us/assets/lifetime-support-technology-069183.pdf</a><br><br><a href="https://support.oracle.com/knowledge/Oracle%20Database%20Products/742060_1.html">https://support.oracle.com/knowledge/Oracle%20Database%20Products/742060_1.html</a> |
| IBM          | <a href="https://www.ibm.com/support/pages/lifecycle">https://www.ibm.com/support/pages/lifecycle</a>                                                                                                                                                                                                                                              |
| HCL          | <a href="https://www.hcltechsw.com/resources/product-release/product-lifecycle-table">https://www.hcltechsw.com/resources/product-release/product-lifecycle-table</a>                                                                                                                                                                              |

## 1.2.2. Hardware requirements for d.velop server applications

### Minimum requirements

To operate d.velop server applications, the following minimum requirements apply:

- **CPU:** 4 cores
- **RAM:** 16 GB
- **Hard disk:** 100 GB of free storage space (depending on data volume, much more storage space may be required).
- **Network:** Gigabit Ethernet

Note that the actual requirement depends on a number of factors. More information: [Suggested configurations of d.velop documents](#).

For the hard disk partitions, plan for storage space both for the current installation and for future updates. When d.velop documents is updated, older program versions are stored in a backup directory. The backup directory allows the version to be restored in the event of a faulty update. With that in mind, plan for additional storage space for the backup copies.

### Size of virtual systems

Virtual systems are scaled like real systems. The host of the virtual systems (real hardware) requires roughly the same total hardware as the virtual systems that are operated on the host. Note the following:

- You can assign more virtual CPUs than physical CPUs. This can potentially save resources compared to non-virtualized systems.
- If you are operating multiple hosts with virtual systems, distribute the I/O load of the applications as evenly as possible.
- If an error occurs and one host has to operate the virtual systems of another failed host, the new host requires sufficient resources.

### VMware limits

- VM CPU utilization below 75%
- VM memory utilization below 80%
- Swap-out and swap-in: All values must be 0.
- Host CPU utilization below 75%
- Host CPU ready time less than 500 ms
- Host memory utilization below 80%
- Host storage overload less than 20 ms
- Host check for dropped packets (transmit and receive): All values must be 0.

## 1.2.3. Operating systems for d.velop server applications

Currently the following operating systems are supported by d.velop server applications.

| Operating system    | Extended end date |
|---------------------|-------------------|
| Windows Server 2016 | 12.01.2027        |
| Windows Server 2019 | 09.01.2029        |
| Windows Server 2022 | 14.10.2031        |
| Windows Server 2025 | 10.10.2034        |

### 1.2.4. Hardware requirements for d.velop client applications

To operate d.velop client applications, the following minimum requirements apply:

- **CPU:** Multi-core processor (Intel Core i5 or equivalent)
- **RAM:** 8 GB
- **Screen resolution:** Full HD (1920 x 1080 pixels)

If multiple users are using one system (terminal server), allow for at least 0.5 GB RAM per person.

### 1.2.5. Operating systems for d.velop integrating applications

Currently the following operating systems are supported by d.velop integrating applications.

| Operating system                           | Extended end date |
|--------------------------------------------|-------------------|
| Windows Server 2016                        | 12.01.2027        |
| Windows Server 2019                        | 09.01.2029        |
| Windows Server 2022                        | 14.10.2031        |
| Windows Server 2025                        | 10.10.2034        |
| Microsoft Windows 10                       | 09.01.2029        |
| Microsoft Windows 11                       | -                 |
| Citrix XenApp 7.15 LTSR                    | 15.08.2027        |
| Citrix Virtual Apps and Desktops 1912 LTSR | 18.12.2024        |
| Citrix Virtual Apps and Desktops 2203 LTSR | 23.03.2027        |
| Citrix Virtual Apps and Desktops 2402 LTSR | 15.04.2029        |
| Citrix Virtual Apps and Desktops 2507 LTSR | 18.08.2028        |

### 1.2.6. Database management systems

The following database management systems are supported by d.velop software.

| Database management system                                                         | Extended end date |
|------------------------------------------------------------------------------------|-------------------|
| Microsoft SQL Server 2016                                                          | 14.07.2026        |
| Microsoft SQL Server 2017                                                          | 12.10.2027        |
| Microsoft SQL Server 2019                                                          | 08.01.2030        |
| Microsoft SQL Server 2022                                                          | 11.01.2033        |
| Microsoft SQL Server 2025                                                          | 06.01.2036        |
| Oracle Database 19c                                                                | 31.12.2032        |
| Oracle Database 21c                                                                | 31.07.2027        |
| This is an "Innovation Release"; therefore, support will end early, in April 2027. |                   |
| Oracle Database 23ai                                                               | TBD               |

Microsoft Azure SQL is not supported.

Use the collation **Latin1\_General\_CI\_AS** if you are using Microsoft SQL Server.

Individual applications also support IBM Db2 on Linux, Unix and Windows. Due to the [discontinuation of support for IBM Db2](#), no further details will be given here.

Oracle Database is supported exclusively for existing installations.

For applications that require one of the systems listed above, install a database client that works with the database management system. Information about the type of client required can be found in the relevant application documentation. Information about compatibility between the DBMS client and the DBMS server can be found in the manufacturer's documentation, for example:

- Microsoft: [System requirements, installation and driver files – ODBC Driver for SQL Server](#)
- Oracle: [Client / Server Interoperability Support Matrix for Different Oracle Versions](#)

### 1.2.7. SAP

The following SAP versions are supported by d.velop software:

|                                  |
|----------------------------------|
| SAP ERP ECC 6.0 EHP 7            |
| SAP NetWeaver 7.40 SP12 or later |
| SAP S/4HANA 1809 or later        |

### 1.2.8.

### 1.2.9. TCP/IP ports

d.velop applications use TCP/IP for communication. The following table lists applications and their ports that may communicate across system boundaries and require firewall activation.

#### Notice

Most applications communicate via d.ecs http gateway. In this case, no firewall activation is required.

| Application            | Protocol | Port |
|------------------------|----------|------|
| d.velop license server | TCP/UDP  | 3489 |
| d.ecs http gateway     | TCP      | 443  |
| d.ecs jstore           | TCP      | 6379 |
| NATS                   | TCP      | 4224 |
| d.3 gateway            | TCP      | 3400 |

#### Notice

Additional ports (for instance, to databases and other third-party systems) may be required. For more information, see the corresponding documentation.

### 1.2.10. Web browser

Here you will find an overview of the web browser versions supported by our software products. d.velop tests its products with current web browser versions and strives to maintain compatibility for at least twelve months. d.velop usually resolves incompatibilities in new web browser versions promptly.

Please note that in connection with integrations (e.g. SAP), only the web browsers supported by the leading application (e.g. SAP GUI) are supported.

| Web browser              | Fundamental platform |
|--------------------------|----------------------|
| Mozilla Firefox (64-Bit) | Microsoft Windows    |
|                          | Apple Mac OS X       |

| Web browser                        | Fundamental platform |
|------------------------------------|----------------------|
| Google Chrome                      | Microsoft Windows    |
|                                    | Android              |
|                                    | Apple iOS            |
|                                    | Apple Mac OS X       |
| Microsoft Edge (based on Chromium) | Microsoft Windows    |
| Safari                             | Apple iOS            |
|                                    | Apple Mac OS X       |

The web browser used must be able to process the **text/javascript** content type.

### Note

Due to technical requirements, only browsers with 64-bit architecture are supported.

## 1.2.11. Certificate

A certificate is required to ensure secure communication between the web client and the servers (https). The certificate should be issued by a certification authority (CA). We do not recommend using self-signed certificates. If you also want the system to be accessible outside your organization, the certificate must be issued by an official certification authority.

The certificate must have the following properties:

- Web server certificate
- Signature hash algorithm: at least SHA-256
- Subject alternative name (SAN):
  - Fully qualified domain name (FQDN)
  - DNS alias
- Key usage:
  - Digital signature
  - Key encryption
- Extended key usage:
  - Server authentication

Never use the host name without the domain name in a certificate. Use only the FQDN of the system or DNS aliases (also only as FQDNs). Please note that for the top-level domain (TLD) “.local”, a certificate cannot be issued by an official certification authority. The same applies to other reserved TLDs.

Certificate revocation lists (CRL) are required to verify validity. The CRLs must be accessible by both the client and the server. Certificates from an official certification authority use CRL servers from the internet.

The certificate is required together with the certificate chain in P12 or PFX format and must be password-protected. For the password, please use only Code Page 850 characters, because some products cannot import certificates with different characters in the password.

The certificate must be exportable.

## 1.2.12. Groupware

The following groupware systems are supported with d.velop documents:

| Groupware                 | Extended end date |
|---------------------------|-------------------|
| Microsoft Exchange Online | -                 |

| Groupware                                           | Extended end date |
|-----------------------------------------------------|-------------------|
| Microsoft Exchange Server Subscription Edition (SE) | -                 |
| Microsoft Outlook 2021 (on Microsoft Windows)       | 13.10.2026        |
| Microsoft Outlook 2024 (on Microsoft Windows)       | 09.10.2029        |
| Microsoft Outlook 365 (on Microsoft Windows)        | -                 |
| HCL Domino 12 (on Microsoft Windows)                | -                 |
| HCL Domino 14 (on Microsoft Windows)                | -                 |
| HCL Domino 14.5 (on Microsoft Windows)              | -                 |
| HCL Notes 12 (32 and 64 bit)                        | -                 |
| HCL Notes 14                                        | -                 |
| HCL Notes 14.5                                      | -                 |

### 1.2.13. Microsoft Office

The following Microsoft Office systems are supported with d.velop documents:

| Microsoft Office           | Extended end date |
|----------------------------|-------------------|
| Microsoft Office 2021      | 13.10.2026        |
| Microsoft Office LTSC 2024 | 09.10.2029        |
| Microsoft Office 365       | -                 |

### 1.2.14. Microsoft components

The following Microsoft components are supported:

| Framework                                                                                                                                                                                                                                                                       | Extended end date |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| .NET Framework 4.8                                                                                                                                                                                                                                                              | -                 |
| Internet Information Services (IIS), matching the operating system                                                                                                                                                                                                              | -                 |
| <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 10px; margin: 10px 0;"> <p><b>Anmerkung</b></p> <p>IIS is not required for running d.velop documents. However, related applications in this area still require IIS, e.g. session management.</p> </div> |                   |
| Microsoft URL Rewrite Module 2.0                                                                                                                                                                                                                                                | -                 |

### 1.2.15. Screen readers

d.velop is testing the accessibility of the software with the JAWS screen reader from Freedom Scientific. We recommend version 2026, as d.velop software is optimized for this. The software can also be used with other JAWS versions or other screen readers. If problems occur with these applications, these problems are only classified as errors if they also occur with JAWS 2026.

## 1.3. Suggested configurations of d.velop documents

### 1.3.1. Notes on configuration suggestions

The following configurations are suggestions that relate to a “small,” “medium” and “large” d.velop documents system (on-premises). The suggestions are based on the current virtual hardware. More information about virtual hardware: [Hardware requirements for d.velop server applications](#).

Your specific hardware needs depend on many factors, such as:

- Documents
  - Number of documents to process
  - Delivery times, especially load peaks



- Type of processing: synchronous or asynchronous
- Required throughput times, e.g. from delivery to storage in long-term memory
- User
  - Total quantity
  - User behavior
- Functional requirements
  - Archiving
  - Document management
  - Workflow
- Accepted downtime

Therefore, we cannot make blanket statements that apply to all systems. However, we will provide sizing tips to help you develop a recommended hardware configuration.

- Determine which d.velop components can be installed and operated on each system. This may cause the number of servers to vary.
- You must calculate the necessary storage space individually for each customer. The calculation must take into account the expected number and size of documents.

### **Assessing the system size**

Often, assessing the system size is very project-specific and cannot be performed merely based on figures. That said, here is a rough guide:

- Small d.velop documents system: Fewer than 100 concurrent users and fewer than 1,000 new documents per day.
- Medium d.velop documents system: Fewer than 500 concurrent users and fewer than 10,000 new documents per day.
- Large d.velop documents system: Fewer than 10,000 concurrent users and fewer than 20,000 new documents per day.

### **To be provided by the client**

Unless otherwise agreed, the infrastructure described here will be provided by the client. This includes the database management system and any required load balancers.

### **Test systems**

In addition to the live environment, we recommend at least one or two additional environments (test environment, acceptance environment). One of these environments should be planned with the same sizing (number of servers, RAM, CPU, partitioning, redundancy) as the live environment. Further non-live environments may be dimensioned smaller.

### **Storage systems**

In addition, we recommend using a storage system that prevents modification/deletion.

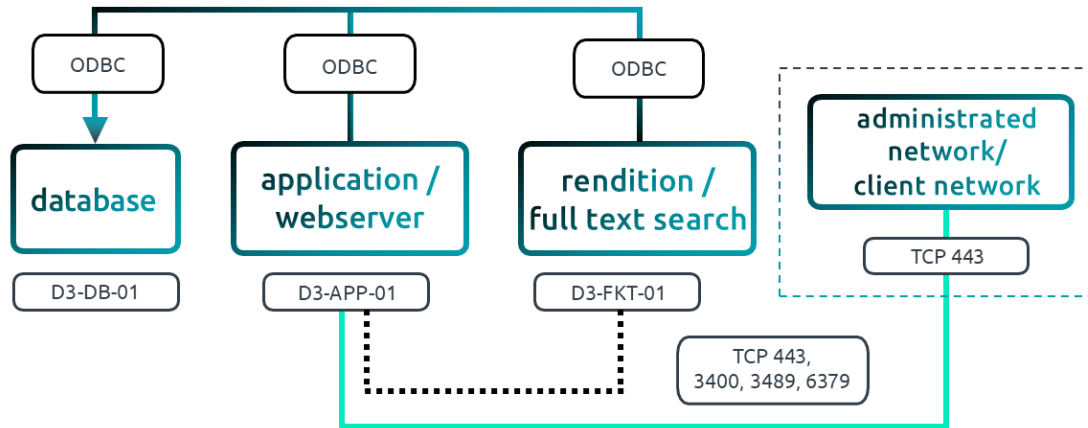
Examples for manufacturer and provider:

- NetApp
- Grau Data
- FAST LTA
- d.velop (cloud storage)

### 1.3.2. Small – up to 100 concurrent users

#### SMALL up to 100 simultaneous users

d.velop



| Count | Function                                                  | CPU cores | RAM [GB] | Partitions [GB]                                                                                             |
|-------|-----------------------------------------------------------|-----------|----------|-------------------------------------------------------------------------------------------------------------|
| 1     | Database server<br>MSSQL<br>[instance or server] *1       | 4         | 16       | C 80 (operating system)<br>D 60 (programs)<br>L 20 (transaction logs)<br>M 60 (databases)<br>UNC (DBBackup) |
| 1     | Application server<br>(current version of Windows Server) | 4         | 16       | C 80 (operating system)<br>D 60 (programs)<br>E 10 (Logging)<br>UNC (documents)<br>UNC (config)             |
| 1     | Function server<br>(current version of Windows Server)    | 2         | 16       | C 80 (operating system)<br>D 60 (programs)<br>E 10 (Logging)                                                |

\*1: Example, more information can be found on the manufacturer's page

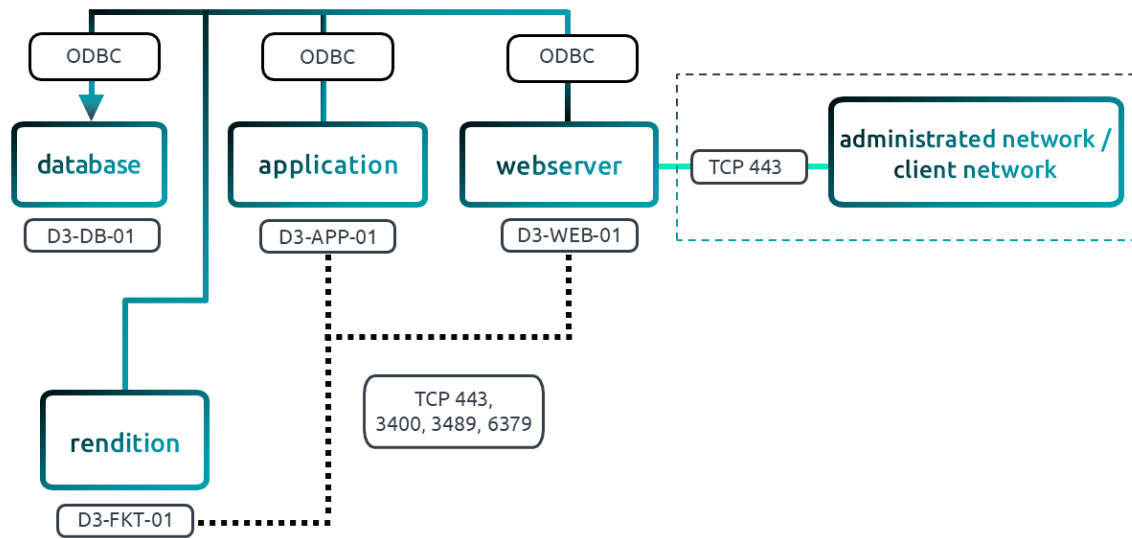
#### SMB/CIFS storage overview (network storage locations)

| Name      | Size [GB] | Type                         | Remark                                                         |
|-----------|-----------|------------------------------|----------------------------------------------------------------|
| DBBackup  | 100       | CIFS/SMB<br>[Reversible SAN] | Storage area for backups of transaction logs and databases.    |
| Documents | 500       | CIFS/SMB<br>[Reversible SAN] | The document tree is connected as a reversible storage medium. |
| Config    | 10        | CIFS/SMB<br>[Reversible SAN] | Split storage area for configuration files, scripts and hooks. |

### 1.3.3. Medium – 100 to 500 concurrent users

#### MEDIUM – 100 to 500 simultaneous users

d.velop



| Count | Function                                                          | CPU cores | RAM [GB] | Partitions [GB]                                                                                             |
|-------|-------------------------------------------------------------------|-----------|----------|-------------------------------------------------------------------------------------------------------------|
| 1     | Database server<br>MSSQL<br>[instance or server] *1               | 4         | 32       | C 80 (operating system)<br>D 60 (programs)<br>L 20 (transaction logs)<br>M 60 (databases)<br>UNC (DBBackup) |
| 1     | Application server<br>(current version of Windows Server)         | 4         | 16       | C 80 (operating system)<br>D 60 (programs)<br>E 10 (Logging)<br>UNC (documents)<br>UNC (config)             |
| 1     | Function server<br>(current version of Windows Server)            | 4         | 16       | C 80 (operating system)<br>D 60 (programs)<br>E 10 (Logging)                                                |
| 1     | Function server/web server<br>(current version of Windows Server) | 2         | 16       | C 80 (operating system)<br>D 60 (programs)<br>E 10 (Logging)                                                |

\*1: Example, more information can be found on the manufacturer's page

#### SMB/CIFS storage overview (network storage locations)

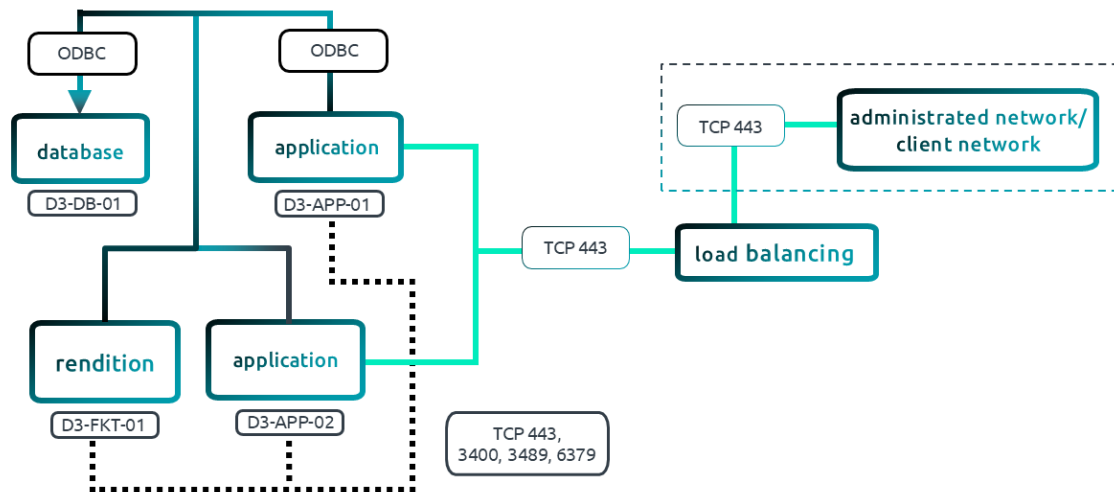
| Name      | Size [GB] | Type                         | Remark                                                         |
|-----------|-----------|------------------------------|----------------------------------------------------------------|
| DBBackup  | 100       | CIFS/SMB<br>[Reversible SAN] | Storage area for backups of transaction logs and databases.    |
| Documents | 500       | CIFS/SMB<br>[Reversible SAN] | The document tree is connected as a reversible storage medium. |

| Name   | Size [GB] | Type     | Remark                                                                             |
|--------|-----------|----------|------------------------------------------------------------------------------------|
| Config | 10        | CIFS/SMB | Split storage area for configuration files, scripts and hooks.<br>[Reversible SAN] |

### 1.3.4. Medium – 100 to 500 concurrent users plus redundancy (high availability of the application server)

#### MEDIUM – 100 to 500 simultaneous users plus partial redundancy (application server high availability)

d.velop



| Count | Function                                                  | CPU cores | RAM [GB] | Partitions [GB]                                                                                             |
|-------|-----------------------------------------------------------|-----------|----------|-------------------------------------------------------------------------------------------------------------|
| 1-n   | Database server<br>MSSQL<br>[instance or server] *1       | 4         | 32       | C 80 (operating system)<br>D 60 (programs)<br>L 20 (transaction logs)<br>M 60 (databases)<br>UNC (DBBackup) |
| 2     | Application server<br>(current version of Windows Server) | 4         | 16       | C 80 (operating system)<br>D 60 (programs)<br>E 10 (Logging)<br>UNC (documents)<br>UNC (config)             |
| 1     | Function server<br>(current version of Windows Server) *2 | 4         | 16       | C 80 (operating system)<br>D 60 (programs)<br>E 10 (Logging)                                                |

\*1: Example, more information can be found on the manufacturer's page

\*2: Additional servers and possibly additional licenses are required to ensure high availability of the function servers.

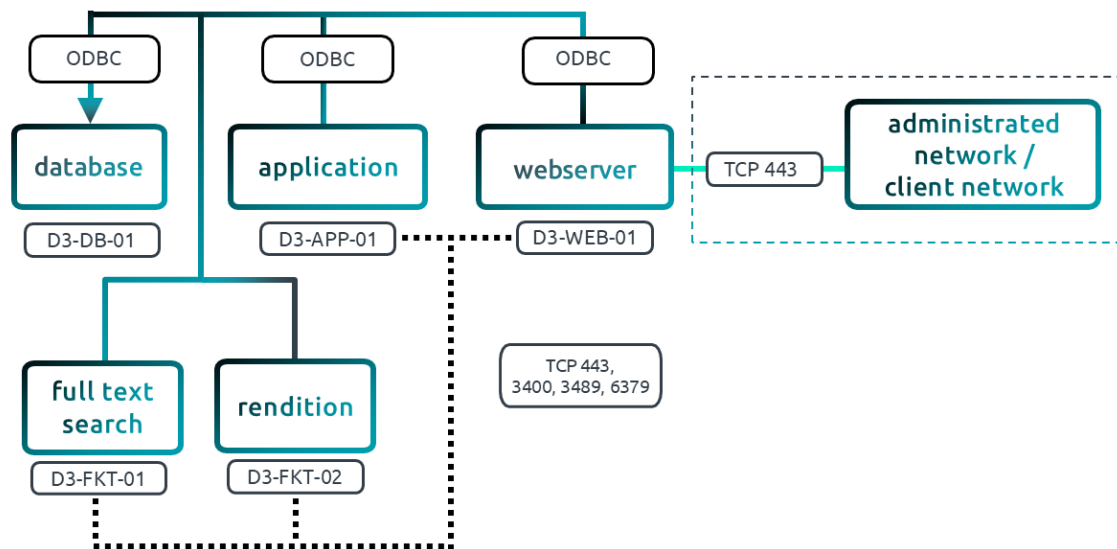
#### SMB/CIFS storage overview (network storage locations)

| Name      | Size [GB] | Type                         | Remark                                                         |
|-----------|-----------|------------------------------|----------------------------------------------------------------|
| DBBackup  | 100       | CIFS/SMB<br>[Reversible SAN] | Storage area for backups of transaction logs and databases.    |
| Documents | 500       | CIFS/SMB<br>[Reversible SAN] | The document tree is connected as a reversible storage medium. |
| Config    | 10        | CIFS/SMB<br>[Reversible SAN] | Split storage area for configuration files, scripts and hooks. |

### 1.3.5. Large – more than 500 concurrent users

#### LARGE – more than 500 simultaneous users

d.velop



| Count | Function                                                               | CPU cores | RAM [GB] | Partitions [GB]                                                                                              |
|-------|------------------------------------------------------------------------|-----------|----------|--------------------------------------------------------------------------------------------------------------|
| 1     | Database server<br>MSSQL<br>[instance or server] *1                    | 8         | 64       | C 80 (operating system)<br>D 60 (programs)<br>L 20 (transaction logs)<br>M 120 (databases)<br>UNC (DBBackup) |
| 1     | Application server<br>(current version of Windows Server)              | 6         | 16       | C 80 (operating system)<br>D 60 (programs)<br>E 10 (Logging)<br>UNC (documents)<br>UNC (config)              |
| 1     | Function server – rendition/OCR<br>(current version of Windows Server) | 4         | 16       | C 80 (operating system)<br>D 60 (programs)<br>E 10 (Logging)                                                 |

| Count | Function                                                           | CPU cores | RAM [GB] | Partitions [GB]                                                                                                     |
|-------|--------------------------------------------------------------------|-----------|----------|---------------------------------------------------------------------------------------------------------------------|
| 1     | Function server – full-text<br>(current version of Windows Server) | 4         | 32       | C 80 (operating system)<br>D 60 (programs)<br>E 10 (Logging)<br>F 100 (full-text DB)<br>G 100 (full-text DB backup) |
| 1     | Function server/web server<br>(current version of Windows Server)  | 4         | 16       | C 80 (operating system)<br>D 60 (programs)<br>E 10 (Logging)                                                        |

\*1: Example, more information can be found on the manufacturer's page

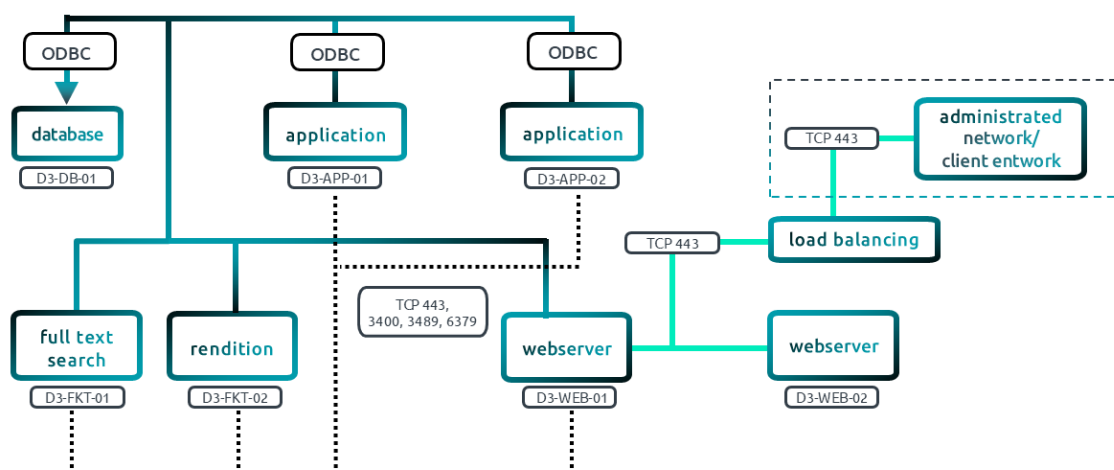
#### SMB/CIFS storage overview (network storage locations)

| Name      | Size [GB] | Type                         | Remark                                                         |
|-----------|-----------|------------------------------|----------------------------------------------------------------|
| DBBackup  | 100       | CIFS/SMB<br>[Reversible SAN] | Storage area for backups of transaction logs and databases.    |
| Documents | 1000      | CIFS/SMB<br>[Reversible SAN] | The document tree is connected as a reversible storage medium. |
| Config    | 10        | CIFS/SMB<br>[Reversible SAN] | Split storage area for configuration files, scripts and hooks. |

### 1.3.6. Large – more than 500 concurrent users plus redundancy (high availability of application and web servers)

#### LARGE – more than 500 simultaneous users plus redundancy (applications- und web server high availability)

d.velop



| Count | Function                                                                      | CPU cores | RAM [GB] | Partitions [GB]                                                                                               |
|-------|-------------------------------------------------------------------------------|-----------|----------|---------------------------------------------------------------------------------------------------------------|
| 1 - n | Database server<br>MSSQL<br>[instance or server, as cluster if applicable] *1 | 8         | 64       | C 80 (operating system)<br>D 60 (programs)<br>L 40 (transaction logs)<br>M 120 (databases)<br>UNC (DBBackup)  |
| 2     | Application server<br>(current version of Windows Server)                     | 6         | 16       | C 80 (operating system)<br>D 60 (programs)<br>E 10 (Logging)<br>UNC (documents)<br>UNC (config)               |
| 1     | Function server – rendition/OCR<br>(current version of Windows Server) *2     | 4         | 16       | C 80 (operating system)<br>D 60 (programs)<br>E 10 (Logging)                                                  |
| 1     | Function server – full-text<br>(current version of Windows Server) *2         | 4         | 32       | C 80 (operating system)<br>D 60 (programs)<br>E 10 (Logging)<br>F 100 (full-text)<br>G 100 (full-text backup) |
| 2     | Function server/web server<br>(current version of Windows Server)             | 4         | 16       | C 80 (operating system)<br>D 60 (programs)<br>E 10 (Logging)                                                  |

\*1: Example, more information can be found on the manufacturer's page

\*2: Additional servers and possibly additional licenses are required to ensure high availability of the function servers.

#### SMB/CIFS storage overview (network storage locations)

| Name      | Size [GB] | Type                         | Remark                                                         |
|-----------|-----------|------------------------------|----------------------------------------------------------------|
| DBBackup  | 100       | CIFS/SMB<br>[Reversible SAN] | Storage area for backups of transaction logs and databases.    |
| Documents | 1000      | CIFS/SMB<br>[Reversible SAN] | The document tree is connected as a reversible storage medium. |
| Config    | 10        | CIFS/SMB<br>[Reversible SAN] | Split storage area for configuration files, scripts and hooks. |

## 1.4. Additional system requirements for individual applications

In addition to the cross-product system requirements, there may be other requirements for individual applications. Refer to the product documentation for the application-specific system requirements. Here you will find information about d.3 cockpit and d.ecs rendition service.

### d.3 cockpit

The operation of d.3 cockpit is also approved for Microsoft Windows client operating systems.

## d.ecs rendition service

The operation of d.ecs rendition service is also approved for Microsoft Windows client operating systems.

The third-party software ZWCAD is required to process CAD drawings. ZWCAD versions 2022, 2023 and 2024 are supported.

Only 32-bit versions of Microsoft Office are supported for converting Office documents.

## d.velop documents for SAP Solutions

The SAP software interfaces are approved for SAP GUI for Windows 8.00 and later.

## d.velop customizing for SAP Solutions

Latest version: 1.2.0.6

| Environment | System requirement                                        |
|-------------|-----------------------------------------------------------|
| Common      | Microsoft Edge (Chromium), Microsoft Edge WebView2        |
| S/4HANA     | SAP S/4HANA 1809 or later                                 |
| SAP ERP     | SAP ERP ECC 6.0 EHP 7<br>SAP NetWeaver 7.40 SP12 or later |

## d.velop data module in SAP ERP (Professional/Invoice Set)

Latest version: 1.2.1

| Environment | System requirement                                                                                  |
|-------------|-----------------------------------------------------------------------------------------------------|
| Common      | d.velop customizing for SAP Solutions 1.2.0.6<br>Microsoft Edge (Chromium), Microsoft Edge WebView2 |
| S/4HANA     | SAP S/4HANA 1809 or later                                                                           |
| SAP ERP     | SAP ERP ECC 6.0 EHP 7<br>SAP NetWeaver 7.40 SP12 or later                                           |

## d.velop archive migration in SAP ERP

Latest version: 1.9.0

| Environment | System requirement                                                                                  |
|-------------|-----------------------------------------------------------------------------------------------------|
| Common      | d.velop customizing for SAP Solutions 1.2.0.6<br>Microsoft Edge (Chromium), Microsoft Edge WebView2 |
| S/4HANA     | SAP S/4HANA 1809 or later                                                                           |
| SAP ERP     | SAP ERP ECC 6.0 EHP 7<br>SAP NetWeaver 7.40 SP12 or later                                           |

## d.velop ecm services for SAP Solutions (2.0.0 or later)

Latest version: 2.5.4

| Environment     | System requirement                                                                                                                                              |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Common          | d.velop customizing for SAP Solutions 1.2.0.0<br>d.velop infrastructure<br>d.velop connect for Microsoft SharePoint (for saving in Microsoft SharePoint Online) |
| Storage systems | Microsoft SharePoint Online<br>d.velop documents (on-premises) and d.3 server (Annual 2022, 8.1.0 HF 62 or latest Current version)                              |



| Environment | System requirement               |
|-------------|----------------------------------|
| S/4HANA     | SAP S/4HANA 1809 or later        |
| SAP ERP     | SAP ERP ECC 6.0 EHP 7            |
|             | SAP NetWeaver 7.40 SP12 or later |

### d.3one in SAP ERP

Latest version: 1.1.0.4

| Environment | System requirement                                 |
|-------------|----------------------------------------------------|
| Common      | d.velop customizing for SAP Solutions 1.2.0.6      |
|             | Microsoft Edge (Chromium), Microsoft Edge WebView2 |
| S/4HANA     | SAP S/4HANA 1809 or later                          |
| SAP ERP     | SAP ERP ECC 6.0 EHP 7                              |
|             | SAP NetWeaver 7.40 SP12 or later                   |

### d.velop smart folder for SAP ERP (MM/SD/QM module)

Latest version: 2.2.0

| Environment | System requirement                                 |
|-------------|----------------------------------------------------|
| Common      | d.velop customizing for SAP Solutions 1.2.0.6      |
|             | Microsoft Edge (Chromium), Microsoft Edge WebView2 |
|             | Adobe Acrobat Reader Continuous Release            |
| S/4HANA     | SAP S/4HANA 1809 or later                          |
| SAP ERP     | SAP ERP ECC 6.0 EHP 7                              |
|             | SAP NetWeaver 7.40 SP12 or later                   |

### d.velop personnel file for SAP ERP

Latest version: 2.1.4.2

| Environment | System requirement                                           |
|-------------|--------------------------------------------------------------|
| Common      | d.velop customizing for SAP Solutions 1.2.0.5                |
|             | Microsoft Edge (Chromium), Microsoft Edge WebView2           |
|             | Adobe Acrobat Reader Continuous Release                      |
| S/4HANA     | SAP S/4HANA 1809 or later and HCM Compatibility Pack or H4S4 |
| SAP ERP     | SAP ERP ECC 6.0 EHP 7 with Enterprise Extension HR or later  |
|             | SAP NetWeaver 7.40 SP12 or later                             |

### d.velop personnel file for SAP ERP, Fiori Add-On

Latest version: 1.0.1.1

| Environment | System requirement                                                                                   |
|-------------|------------------------------------------------------------------------------------------------------|
| Common      | d.velop customizing for SAP Solutions 1.2.0.5                                                        |
|             | Browser (Microsoft Edge, Google Chrome, Apple Safari, Mozilla Firefox) that supports ECMAScript 2019 |
| d.velop     | d.velop personnel file for SAP ERP 2.1.4.0 or later                                                  |
| S/4HANA     | SAP S/4HANA 1809 or later and HCM Compatibility Pack or H4S4                                         |
| SAP ERP     | SAP ERP ECC 6.0 EHP 7 with Enterprise Extension HR or later                                          |
|             | SAP NetWeaver 7.40 SP12 or later                                                                     |

## d.velop invoice for SAP ERP, Fiori Add-On

Latest version: 1.4.3

| Environment | System requirement                                                                                                                                    |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Common      | d.velop customizing for SAP Solutions 1.2.0.5<br>Browser (Microsoft Edge, Google Chrome, Apple Safari, Mozilla Firefox) that supports ECMAScript 2019 |
| KPSC        | Classifier 22                                                                                                                                         |
| S/4HANA     | SAP S/4HANA 1809 or later                                                                                                                             |
| SAP ERP     | See system requirements for KPSC Classifier<br>See system requirements for KPSC Classifier                                                            |

## CMIS Connector

Latest version: 3.3.1

| Environment | System requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Common      | <b>Server operating systems</b><br>Windows Server 2016 or later<br><br><b>Database systems</b><br>Microsoft SQL Server 2012 or later<br>Oracle Server 11.2 or later<br><br><b>Applications</b><br>d.velop documents web client with: <ul style="list-style-type: none"> <li>• d.ecs identity provider 2.6.4 or later</li> <li>• DMS app</li> <li>• Repository app</li> <li>• d.ecs http gateway 2.1.4 or later</li> <li>• d.3 process manager 4.4.0 or later</li> </ul> d.3 server (Annual 2022, 8.1.0 HF 62 or latest Current version) with: <ul style="list-style-type: none"> <li>• d.3 gateway 5.3.8 or later</li> <li>• d.ecs jstore 1.4.3 or later</li> <li>• d.3 logview 5.0.2 or later</li> </ul> |

## d.velop integration service for SAP Solutions

Latest version: 1.1.6

| Environment    | System requirement                                                                                                                        |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Common         | Browser (Microsoft Edge, Google Chrome, Apple Safari, Mozilla Firefox) that supports ECMAScript 2022 for the front end for administration |
| Source systems | All SAP systems with OData V2 or OData V4 connected                                                                                       |

| Environment    | System requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SAP BTP        | Global account and sub-account on the BTP<br>CloudFoundry runtime<br>SAP Cloud Connector (optional for on-premises source or target systems for integrations)<br><b>Additional services</b><br>Destination Service (mandatory)<br>Connectivity Service (mandatory)<br>PostgreSQL Hyperscaler Option (mandatory)<br>PostgreSQL Hyperscaler Option (mandatory)<br>Application Logging Service (mandatory)<br>EventMesh (optional, for event-driven integrations)<br>Alert notification (optional)<br>Document management integration option (for CMIS indexing)<br>SAP Build Work Zone (optional) |
| Target systems | d.velop documents (on-premises) 1.10.7 or later<br>d.velop documents (cloud)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## d.velop archivelink for SAP Solutions

Latest version: 3.1.4

| Environment     | System requirement                                                                                                                                                                                                                                                                                                          |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Common          | <b>Server operating systems</b><br>Windows Server 2016 or later<br><b>Database systems</b><br>Microsoft SQL Server 2016 or later<br>Oracle Database Version 12c R1 or later<br>MySQL (with InnoDB) 5.7.12 or later<br><b>Applications</b><br>Microsoft Edge (Chromium), Microsoft Edge WebView2, Google Chrome 120 or later |
| Storage systems | Microsoft SharePoint Online<br>d.velop documents (on-premises) and d.3 server (Annual 2022, 8.1.0 HF 62 or latest Current version)                                                                                                                                                                                          |
| S/4HANA         | SAP S/4HANA 1809 or later                                                                                                                                                                                                                                                                                                   |
| SAP ERP         | SAP ERP ECC 6.0 EHP 7<br>SAP NetWeaver 7.40 SP12 or later                                                                                                                                                                                                                                                                   |

## d.velop ilm archiving for SAP Solutions

Latest version: 2.0.2

| Environment | System requirement                                                             |
|-------------|--------------------------------------------------------------------------------|
| Common      | <b>Server operating systems</b>                                                |
|             | Windows Server 2016 or later                                                   |
|             | <b>Database systems</b>                                                        |
|             | Microsoft SQL Server 2016 or later                                             |
|             | Oracle Database Version 12c R1 or later                                        |
|             | <b>Applications</b>                                                            |
|             | Microsoft Edge (Chromium), Microsoft Edge WebView2, Google Chrome 120 or later |
|             | d.ecs storage manager 3.2 or later                                             |
|             | d.ecs identity provider 2.6.4 or later                                         |
|             | d.3 process manager 4.4.1 or later                                             |
|             | SAP Information Lifecycle Management (ILM)                                     |

## d.velop archivelink services for SAP Solutions

| Environment     | System requirement                                                                                                                                                              |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Common          | <b>Server operating systems</b>                                                                                                                                                 |
|                 | Windows Server 2016 or later                                                                                                                                                    |
|                 | <b>Applications</b>                                                                                                                                                             |
| Storage systems | Microsoft Edge (Chromium), Microsoft Edge WebView2, Google Chrome 120 or later                                                                                                  |
|                 | d.velop connect for Microsoft SharePoint or d.3 server (Annual 2022, 8.1.0 HF 62 or latest Current version) with d.3 gateway (5.3.8 or later) and d.ecs jstore (1.4.3 or later) |
|                 | Microsoft SharePoint Online                                                                                                                                                     |
|                 | d.velop documents (on-premises) and d.3 server (Annual 2022 version, 8.1.0 HF 62 or latest Current version)                                                                     |
| S/4HANA         | d.velop documents (cloud)                                                                                                                                                       |
|                 | SAP S/4HANA 1809 or later                                                                                                                                                       |
| SAP ERP         | SAP ERP ECC 6.0 EHP 7                                                                                                                                                           |
|                 | SAP NetWeaver 7.40 SP12 or later                                                                                                                                                |

## d.velop template management

For this application you need Xential (version 4.6.0 or later) or SmartDocuments (version 2023.Q3 or later).

## d.velop smart invoice

This application only supports Microsoft SQL as a database management system.

## 1.5. Notes on the handling of virus scanners

d.velop documents potentially processes large amounts of data and is therefore prone to performance issues caused by external systems such as virus scanning software. It is nearly impossible to provide general recommendations for configuring virus scanning software, as the configuration must be considered individually for each project. This chapter is intended to merely provide some tips for working with virus scanning software in the context of a d.velop documents system.

### Excluding individual processes, directories, file types and other adjustments

If using virus scanning software causes performance issues while working with d.velop documents, you can exclude individual processes, directories, or file types from virus scanning after thoroughly analyzing the individual risk.

**Warning**

Exceptions always create a residual risk that you must analyze individually.

Example: An e-mail processing system has a much higher risk than a local scanning system that only digitizes paper documents.

Always perform sufficient load tests before and after configuring the virus scan software to evaluate possible performance gains due to virus protection restrictions. Always weigh up security aspects and possible performance gains before restricting virus protection for certain items.

When in doubt, always upgrade your (virtual) hardware resources to eliminate performance issues before compromising security by restricting virus protection.

## 1.6. Additional information sources and imprint

If you want to deepen your knowledge of d.velop software, visit the d.velop academy digital learning platform at <https://dvelopacademy.keelearning.de/>.

Our E-learning modules let you develop a more in-depth knowledge and specialist expertise at your own speed. A huge number of E-learning modules are free for you to access without registering beforehand.

Visit our Knowledge Base on the d.velop service portal. In the Knowledge Base, you can find all our latest solutions, answers to frequently asked questions and how-to topics for specific tasks. You can find the Knowledge Base at the following address: <https://kb.d-velop.de/>

Find the central imprint at <https://www.d-velop.com/imprint>.