



# winra System requirements

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# 1 Introduction and general information

This information document describes the technical requirements of winra along with the requirements for your IT landscape for putting winra to productive use.

winra does not require an application server. A file server and the MS SQL database server are sufficient. There is no need to install a runtime engine or the like on the client PCs. The only exception here is beA, the special electronic mailbox for use by lawyers for electronic legal transactions, which is provided by the German Federal Bar Association.

The beA interface introduced with version 6.2 requires .NET Runtime 4.7.2 and Visual C++ Redistributable 2012 and 2013. However, these program files only have to be rolled out to the client PCs if the user wants to use the beA interface.

An interface to the bebPo can be established via the Governikus® MultiMessenger.

Additional general information:

- Installation: The software is installed using the installation programs and installation instructions provided online in the winra customer portal. The current respective system requirements apply as well.
- Support: Support is provided online using the 'Teamviewer' tool. To help us provide quick and smooth support, we would like to ask you to grant online access for this tool. (<a href="www.teamviewer.de">www.teamviewer.de</a>)
- Data backup: Backing your data up is a top priority. Please always perform a complete backup of the entire program and data inventory. Please feel free to contact us if you need assistance with the backup settings.
- Antivirus software: We generally recommend use of the latest antivirus software. Only virus software that the manufacturer has approved for use with the respective operating system should be used.
- e-mail Connection: The e-mail Connection is made for Microsoft® Outlook versions 2013 to Microsoft® Outlook 2019, and for Google Mail (GMail).

# 2 Stand-alone and network workstation

## 2.1 Installation information

- Low administration effort, since a local installation of winra on the workstations is not mandatory. The application can be started directly from the network share, depending on the authorization and security concept.
- Simple Windows user rights are sufficient for installation

## 2.2 System environment

System prerequisites	Single Workstation	
requirements	Processor:	Processor or SoC with at least 1.5 GHz
	System Memory:	min. 2 GB for 32 bit operating system or
		min. 4GB for 64 bit operating systems
	Free hard disk space:	At least 10 GB for applications
		plus accruing user data
	Graphics card:	DirectX 9 or higher with WDDM 1.0 driver
	Monitor:	Minimum resolution:
		1280x720 (HD720) up to 100% Scaling
		1600x900 (WSXGA) up to 125% Scaling
		1920x1080 (Full HD) up to 150% Scaling
	Network Workstation	
	Processor:	Processor or SoC with at least 1.5 GHz
	System Memory:	min. 2 GB for 32 bit operating system or
		min. 4GB for 64 bit operating systems
	Free hard disk space:	At least 5 GB for applications
	Graphics card:	DirectX 9 or higher with WDDM 1.0 driver
	Monitor:	Minimum resolution:
		1280x720 (HD720) up to 100% Scaling
		1600x900 (WSXGA) up to 125% Scaling
		1920x1080 (Full HD) up to 150% Scaling
Recommended	Operating System:	Windows 10 Professional – 64 Bit
Equipment	Processor:	Processor or SoC with at least 1.5 GHz
		(z.B. Intel® Core™ i-CPU 9. Generation)
	System Memory::	4 GB
	Free hard disk space:	200 GB SSD
		(plus accruing user data)
	Graphics card:	DirectX 9 or higher with WDDM 1.0 driver
	Monitor:	Minimum resolution:
		1920x1080 (Full HD) up to 150% Scaling

## Microsoft® • Microsoft<sup>®</sup> Windows<sup>®</sup> 8.1 – Professional oder Enterprise Microsoft<sup>®</sup> Windows<sup>®</sup> 10 – Pro oder Enterprise (empfohlen) **Operating** systems \*1 \*3 \*7 Microsoft®.NET Framework 4.7.2 must be installed/enabled on all operating systems.. \*2 All operating systems are supported in their 32 bit and 64 bit versions. When using the beA interface, the Visual C++ Redistributable 2012 and 2013 must also be installed. These are not supplied by Wolters Kluwer. Microsoft® Windows® operating systems are not components of the winra application software. Word processing \*1 \*4 Microsoft® Word 2013 (32 or 64 Bit-Version) • Microsoft® Word 2016 (32 or 64 Bit-Version) Microsoft® Word 2019 (32 or 64 Bit-Version) • or a corresponding Microsoft® Office derivative / a full desktop version included in a Microsoft 365 subscription in a supported version. Microsoft® Office products are not components of the winra application software. Database driver winra uses the Microsoft OLE DB driver from Microsoft (SQLOLEDB). This driver is present in all Windows installations, so that winra can be used without additional installation. However, this database driver is outdated. It uses an old TLS version and does not encrypt with current encryption technology. To ensure secure encryption, this database driver should be replaced on all winra clients by the new OLE DB driver (MSOLEDBSQL) from Microsoft. This is not automatically included in Windows and must be installed on all workstations. Download link: https://www.microsoft.com/de-de/download/details.aspx?id=56730 Database \*1 \*5 Single Workstation The Microsoft® SQL Server Express Edition can be installed and used or an existing Microsoft® SQL Server. The following versions are supported: Up to a maximum of 10 GB database size: Microsoft® SQL Server 2012 Express Edition Microsoft® SQL Server 2014 Express Edition Microsoft® SQL Server 2016 Express Edition Microsoft® SQL Server 2017 Express Edition Microsoft® SQL Server 2019 Express Edition For unlimited database size: Microsoft® SQL Server 2012 Standard Edition Microsoft® SQL Server 2014 Standard Edition Microsoft® SQL Server 2016 Standard Edition Microsoft® SQL Server 2017 Standard Edition Microsoft® SQL Server 2019 Standard Edition The Microsoft® SQL Server is not part of the winra application software. Google Mail Gmail for Business in the current version.

# 3 Client-server network using Microsoft® Windows® Server

Server	Operating system: Processor:	Windows Server Operating System (64 Bit) Processor or SoC with at least 1.5 GHz		
	110003301.	(e.g. Intel® Xeon E5-xxxx)		
	System Memory:	at least 8 GB		
	Hard Disks:	Fault-tolerant hard disk system on a		
		RAID 1, 5 or 10 basis with at least 500 GB of free space		
		(more if necessary for accumulating data volume)		
	Please take into account that the expansion of hard disk capacity and main memory is highly dependent on the number of workstations, calculated data volumes, additionally required and installed services.			
Recommended Equipment	Operating system:	Microsoft <sup>®</sup> Windows <sup>®</sup> Server 2019 (64 Bit)		
_40.6	Processor:	Processor or SoC with at least 1.5 GHz		
		(e.g. Intel® Xeon E5-xxxx)		
	System Memory:	from 16 GB		
	Hard Disks:	Fault-tolerant hard disk system on a		
		RAID 1, 5 or 10 basis with at least 500 GB of free space		
		(more if necessary for accumulating data volume)		
	Hardwareservice:	Hardware on-site service contract on the part of		
		manufacturer or supplier with 3 or 5 years term		
		and 24x5 support		
Microsoft®	Microsoft® Windows® Server 2012 (Standard / Datacenter)			
Operating -	Microsoft® Windows® Server 2012R2 (Standard / Datacenter)			
systems *1 *3 *6 *7	Microsoft® Windows® Server 2016 (Standard / Datacenter)			
	Microsoft® Window	rs® Server 2019 (Standard / Datacenter)		
	Microsoft® Windows® Server 2022 (Standard / Datacenter)			
	<ul> <li>Microsoft® .NET Framework 3.51 and .NET Framework 4.8 must be installed/enabled on all operating systems. *2</li> </ul>			
	Microsoft® Windows® operating systems are not components of the winra application software.			
Database *1 *5	Microsoft® SQL Serv	ver 2012 (Standard / Enterprise)		
	Microsoft® SQL Serv	ver 2014 (Standard / Enterprise)		
	Microsoft® SQL Server 2016 (Standard / Enterprise)			
	Microsoft® SQL Server 2017 (Standard / Enterprise)			
	Microsoft® SQL Serv	ver 2019 (Standard / Enterprise)		
	The Microsoft® SQL Se	rver is not part of the winra application software. However,		
		ally offers strongly discounted RUNTIME versions of the data-		
		of a so-called ISV contract with Microsoft®. However, under		
	licensing law, these ve ated by Wolters Kluwe	rsions may only be used in conjunction with the software cre- r.		
	For full-text search, so	-called IFilters must be installed on the database server: MS		
	Office Filterpack and A	dohe PDF IFilter		

# 4 Client-server network via Microsoft® Windows® Terminal Server

Server	Operating system: Processor:	Windows Server Betriebssystem (64 Bit) Processor or SoC with at least 1.5 GHz (e.g. Intel® Xeon E5-xxxx)	
	System Memory:	at least 16 GB	
	Hard Disks:	Fault-tolerant hard disk system on a	
		RAID 1, 5 or 10 basis with at least 500 GB of free space (more if necessary for accumulating data volume)	
		nt that the expansion of hard disk capacity and main memory the number of workstations, calculated data volumes, addi- stalled services.	
	A total of at least two s	ervers are required.	
	listed under "Client-ser The other servers only	usively as database and service server. The requirements over network using Microsoft® Windows® Server" apply here. provide the pure terminal services and must be configured ponding guidelines for the operation of a terminal server en	
		t® Terminal Services / RD Services (RDP protocol), Citrix Xe- CA protocol) is also supported.	
	Redirected printers via system limitations.	terminal client are not supported as default printers due to	
Microsoft®		s° Server 2012 (Standard, Datacenter)	
Operating	Microsoft® Windows® Server 2012R2 (Standard, Datacenter)		
systems *1 *3 *6 *7	Microsoft® Windows® Server 2016 (Standard / Datacenter)		
		s <sup>®</sup> Server 2019 (Standard / Datacenter) s <sup>®</sup> Server 2022 (Standard / Datacenter)	
	• Microsoft® .NET Fra	mework 3.51 and .NET Framework 4.8 must be installed/enng systems. *2	
	<ul> <li>All operating system X64).</li> </ul>	ns are supported in their 32 bit and 64 bit version (X32 or	
	Microsoft® Windows® (	operating systems are not components of the winra applica-	
Word processing *1 *4		13 (32 or 64 Bit-Version)	
*7 *8		16 (32 or 64 Bit-Version)	
		19 (32 or 64 Bit-Version)	
		Microsoft® Office derivative / full desktop version included i scription in a supported version.	
	Microsoft® Office prod	ucts are not part of the winra application software.	
	1		

It is important to note that for Microsoft® licensing reasons, Micro-soft® Office can only be operated on a terminal server via so-called volume licenses. The installation

of other versions is not possible.

# Terminalsession Limitations

On a terminal server with 16 GB main memory and 2 CPU cores (cores), it has been found in practice that, due to third-party applications such as Microsoft® Office, Internet, etc. used in addition to the winra user software, approx. 10 sessions can be used simultaneously.

# 5 Directory Services / SSO

winra supports the import as well as the user authorization by means of so-called directory services based on Microsoft Azure AD as well as LDAP(s) compatible services like the Microsoft Active Directory.

## 5.1 Azure AD

### Prerequisites:

- Azure AD Directory Service
- Accessing the Directory Service Administration
- Users must have the following characteristics in the directory service:
  - First Name
  - Last Name
  - User Login Name
  - User Login Name (Windows 2000 prefix)
  - User Password

### Limitations:

Login to winra is possible with directory service enabled users only if access to the directory service is possible (access to the Internet / Azure AD service).

An Azure AD user can only be linked to one winra user. A link with multiple users (1:n link) is not possible.

## 5.2 LDAP Compatible Service

#### Requirements:

- LDAP Compatible directory service (e.g. Microsoft Active Directory).
- Users must have the following characteristics in the directory service:
  - First name
  - Last name
  - User login name
  - User logon name (pre Windows 2000)
  - User Password

## Limitations:

- Logon to winra is possible with directory service enabled users only if access to the directory service is possible (access to the corporate network).
- A Windows user can only be linked to one winra user. Linking with multiple users (1:n linking) is not possible
- Users from Active Directory trust positions cannot be linked.

## 6 Abbyy FineReader OCR engine

The 'FineReader' OCR engine by ABBYY is required to use of the OCR function in winra. This can be purchased from Wolters Kluwer Deutschland and is currently supported in version 12. Further information is available at <a href="https://www.abbyy.de">www.abbyy.de</a>.

The following languages are supported and can be activated:

German, English, Albanian, Bulgarian, Czech, Croatian, Danish, Dutch, Dutch (Belgium), Estonian, Finnish, French, German (new spelling), Greek, Hungarian, Gaelic, Italian, Latvian, Lithuanian, Norwegian, Polish, Portuguese, Romanian, Russian, Serbian (Latin), Serbian (Cyrillic), Slovak, Slovenian, Spanish, Swedish, Turkish

An additional component by ABBYY is required for the Asian and Arabic languages.

German and English are factory-activated. The fewer languages are activated, the faster and more precise recognition is. Other languages can be set in winra system management.

## 6.1 Architecture

The following items are required to install ABBYY Finereader for winra:

- A license server, a Windows service by ABBYY that assumes license control. This must be installed once in the network and activates the license only once at ABBYY via the port shown below. Subsequently, no online connection is required.
- The Finereader program files. Like winra itself, these files can either be stored on a network drive or copied locally to the client computer

## **6.2** System requirements

License server: This server is activated only once during installation via the TCP/IP port.

- Current version of Windows
- 25 MB of space on the hard drive
- Free TCP/IP port (default: 3022)
- Administrator rights are required to install the license server.

#### **Operating OCR:**

- · Current version of Windows
- Main memory: 1 GB, at least 1.5 GB recommended
- Hard drive:
  - approx. 1 GB for FineReader program files (possibly in the network)
  - 15 MB for each page of a document on the local computer.

## 7 Online Akte

The legal department can use the "Online-Akte" to exchange files, documents and data using a highly secure web server.

The online file consists of three areas

- The websites
- A front-end server
- A back-end server

There are 2 installation scenarios for the front-end server:

- 1. Hosting by Wolters Kluwer Deutschland
- 2. Hosting by the customer.

## 7.1 Websites in the browser

Javascript is required for proper display of the websites of the online file. Cookies are required for session management. Both must therefore be enabled in the browser.

## 7.2 Front-end server

The front-end server generates the websites and assumes the task of session management.

The core features of the front-end server are:

- RedHat-compatible Linux in the current version
- WordPress in the current version
- Interface to Microsoft Office Online as preview component and for PDF conversion
- Core-protected API interface for the back-end application
- Constantly 'up-to-date' virus search of uploaded documents using ClamAV, the standard malware scanner

## 7.2.1 Hosting by Wolters Kluwer

The front-end server of the online file is hosted and operated in a datacentre that is accredited pursuant to DIN ISO 27001. The datacentre in which the online file is operated has an annual average availability of 99.5 percent.

The connection between the front-end server and the back-end server is secured via a static VPN connection. The 'SoftEther VPN' software is used for the VPN connection and can be installed and configured during setup.

Benefits of hosting with Wolters Kluwer:

- Live status monitoring, reporting and troubleshooting using own Nagios instance
- Datacentre accredited pursuant to DIN ISO 27001
- Datacentre failsafe performance of around 99.5%

Requirements for connection to the back-end server

- SoftEther VPN Client
- Port 443 for the connection to front-end servers at Wolters-Kluwer via VPN.

## 7.2.2 Hosting by the customer (on-premise)

As an alternative to hosting at Wolters Kluwer, the front-end server can also be hosted on your servers. Wolters Kluwer provides you with a preconfigured VM (virtual machine) for the purpose. The VM can be run using Hyper-V and VMware.

#### Prerequisites:

- 2 public and free IP addresses (or reverse proxy structure)
- · The online file VM
- An HTTPS certificate for the online file (example: oa.kunden.de)
- A Office 2016 volume license for purchase of the Office Online Server
- From the Microsoft volume program, the 'Office Online Server', which must be installed on a separate VM with public IP and as a member of a domain and serves as a viewer component for Word, Excel, etc. The 'Office Online Server' is available for download in the Volume Licensing Service Center (VLSC). 'Office Online Server' is a component of MS Office. Therefore, it is displayed on every MS Office product page, including MS Office Standard 2016, MS Office Professional Plus 2016, and MS Office 2016 for Mac Standard
- Customisation files for the Office Online Server for the online file (3 script files)
- An HTTPS certificate for the Office Online Server (example: oos.kunde.de)
- A DMZ on the firewall in which both two servers can be operated

## 7.3 Back-end server

The back-end server is called up by the front-end server to retrieve data from your winra database. In addition, the back-end server has a notification service that sends e-mails to users of the online file, e.g. to inform them of changes.

Prerequisites for the back-end server:

- Current Windows
- .Net in Version 4.7.2
- Open port 9070 this can be changed during installation but must be available first.
- Access to the winra database
- Access to an SMTP server (for the notification service)
- Port to control from winra open for all clients running winra. This can be identical to the port for the back-end server.

The back-end server is installed as a Windows service. Possible errors are stored in the Windows event log.

## 7.4 Other important technical data

#### 7.4.1 Protection of data

Data from winra are not stored in the front-end server or in the back-end server. While operation of the back-end server is completely 'stateless' and calls up data for each operation from the winra database, the front-end server stores data for the respective session. All saved session data are available in a form that does not permit direct inference from the file name to a specific file.

HTTPS operates in standard Cipher Suites that are up to date and compliant with applicable best practices

Based on the underlying WordPress technology, the online file stores cookies on the call-up computer containing; these cookies contain language and page settings, for example.

#### 7.4.2 Authentication

Online file accounts can be created in winra. These accounts consist of a user name, e-mail address, telephone number and password. A password can be assigned manually, or else winra creates it using a random generator. (As this generator is reinitialized with the system time, it should always provide different values). The password is encrypted and stored as hash values in the database.

The password can be changed subsequently by the user, both in winra and in the online file.

Optionally, the winra login data are sent to the user by e-mail.

## 7.4.3 PDF download

The online file permits the download of documents and files in original and PDF formats. The download of a PDF document is transparent for the user and the legal department, since the conversion is performed online by the Microsoft Office Online Viewer, using the integrated Microsoft WOPI interface.

# 8 TAPI interface

The prerequisite for this is a telephone system with a functioning CTI environment via Microsoft® TAPI interface 2.1. The CTI environment is not installed by Wolters Kluwer Deutschland GmbH.

# 9 Supplementary information

 Microsoft Mainstream Support has already expired for various Microsoft products according to the table below. For products whose Extended Support has already expired, no support can be guaranteed. It is also recommended to replace products whose mainstream support has ended with current products supported by the manufacturer.

## **Operating systems:**

Product	End Mainstream Support	End Extended Support
	by Microsoft	by Microsoft
Windows XP	14.04.2009	08.04.2014
Windows XP Embedded	-	12.01.2016
Windows Embedded Standard	-	08.01.2019
Windows Vista	10.04.2012	11.04.2017
Windows 7	13.01.2015	14.01.2020
Windows 8.0	12.01.2016	12.01.2016
Windows 8.1	09.01.2018	10.01.2023
Windows Server 2003 / 2003R2	13.07.2010	14.07.2015
Windows Server 2008 / 2008R2	13.01.2015	14.01.2020
Windows Server 2012 / 2012R2	09.10.2018	10.10.2023
Windows Server 2016	11.01.2022	11.01.2027
Windows Server 2019	09.01.2024	09.01.2029

In the Windows 10 version, the availability and end-of-service dates are organized by edition.

## Windows 10:

Windows 10	Publication-	Service end for	Service end for
Version history	date	Pro- editions	Enterprise Editions
Windows 10, Version 20H2	20.10.2020	10.05.2022	09.05.2023
Windows 10, Version 2004	27.05.2020	14.12.2021	14.12.2021
Windows 10, Version 1909	12.11.2019	11.05.2021	10.05.2022
Windows 10, Version 1903	21.05.2019	08.12.2020	08.12.2020
Windows 10, Version 1809	02.10.2018	14.04.2020	13.04.2021
Windows 10, Version 1803	30.04.2018	12.11.2019	10.11.2020
Windows 10, Version 1709	17.10.2017	09.04.2019	14.04.2020
Windows 10, Version 1703	05.04.2017	09.10.2018	08.10.2019
Windows 10, Version 1607	02.08.2016	10.04.2018	09.04.2019
Windows 10, Version 1511	10.11.2015	10.10.2017	10.10.2017
Windows 10, Version 1507	29.07.2015	09.05.2017	09.05.2017

Note: A device may not receive updates if the device hardware is not compatible, current drivers are missing, or the original equipment manufacturer (OEM) support has expired. Please check with the supplier / manufacturer of the device if necessary.

- The Pro editions include the following product editions: Pro, Pro Education, Pro for Workstations.
- The Enterprise Editions include the following product editions: Education, Enterprise

#### **Office Products:**

Product	End Mainstream Support by Microsoft	End Extended Support by Microsoft
Office 2003	14.04.2009	08.04.2014
Office 2007	09.10.2012	10.10.2017
Office 2010	13.10.2015	13.10.2020
Office 2013	10.04.2018	11.04.2023
Office 2016	13.10.2020	14.10.2025
Office 2019	10.10.2023	14.10.2025

#### **SQL Server Products:**

Product	<b>End Mainstream Support</b>	End Extended Support
	by Microsoft	by Microsoft
SQL Server 2008 (SP4)	08.07.2014	09.07.2019
SQL Server 2008R2 (SP3)	08.07.2014	09.07.2019
SQL Server 2012 (SP4)	11.07.2017	12.07.2022
SQL Server 2014 (SP2)	09.07.2019	09.07.2024
SQL Server 2016	13.07.2021	14.07.2026
SQL Server 2017	11.10.2022	12.10.2027
SQL Server 2019	07.01.2025	08.01.2030

For more information on Microsoft LifeCycle policies, please refer to the following Microsoft article:

### https://support.microsoft.com/de-de/lifecycle

- The Microsoft® .NET Framework 3.51 is included with Windows 10, Server 2016, Server 2019 and Server 2022, but must be manually enabled through Windows Features.
  - The Microsoft® .NET Framework 4.8 can be installed via Windows Update or manually.
- 3. A maximum of 4 GB of main memory and a maximum of 2 TB of hard disk space are supported on a 32-bit operating system due to the system.
- 4. Office WebApps, Office Apps from the "My Office" app, as well as the Office Online versions (Office applications in the web browser) e.g. from a Microsoft 365 subscription are not supported.
- Depending on the operating system used, the 32-bit or 64-bit version must be used.
   It must be considered that when using the free SQL Server Express Edition, a max. of 4 GB (10 GB when using the SQL Server from 2012 Express Edition) storage space is available per database, and is limited to 1GB RAM and the CPU cores used.
  - Microsoft® SQL Server Workgroup, Standard or Enterprise Editions do not have any limitation of the database size, if necessary limitations on the maximum number of processors and main memory are to be considered.
- 6. The "Windows Server Foundation Edition" and the "Windows Server Essentials Edition" are not recommended for use due to their limitations (for more details please refer to the Microsoft product homepage). Wolters Kluwer does not test the functionality of these editions.
- 7. Only final operating systems and Office versions are supported. Support for Insider Builds, Preview Builds, Beta Version or Release Candidates, etc. is not guaranteed or supported in production environments.
- 8. Please note that before an automatic version upgrade of an office application, you should check the corresponding IT requirements for compatibility with the desired version.



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IT Requirements

