

## System requirements Vienna Test System

As at: April 2019 - version 8.12.00

### Note on installing the Vienna Test System

The Vienna Test System must be installed by a Windows user with local administrator rights.

### Recommendations for installing the Vienna Test System

Before you install the VTS, your operating system should be fully updated – i.e. all available Windows updates should be installed. To see whether any updates are available for your system, go to <http://update.microsoft.com>. Many PC manufacturers (e.g. Dell, HP, IBM, Lenovo) supply their own drivers for graphics cards. Please check that the latest drivers for your graphics card are installed on your computer. We also recommend using SCHUHFRIED's calibration module to calibrate your monitor before measuring times precisely for the first time.

For smooth operation of the Vienna Test System, it is necessary to have reading and writing rights in various folders on the computer. The Windows user must therefore have adequate rights for the following folders:

Directory	Path
%ProgramData%\Schuhfried	C:\ProgramData\Schuhfried
%LOCALAPPDATA%\Schuhfried	C:\Users\Users\AppData\Local\Schuhfried
%TEMP%	C:\Users\Users\AppData\Local\Temp
%ProgramFiles%\SCHUHFRIED GmbH*	C:\Program Files\SCHUHFRIED GmbH
%ProgramFiles(x86)%\SCHUHFRIED GmbH**	C:\Program Files (x86)\SCHUHFRIED GmbH

Some antivirus and security programs can obstruct or disrupt the performance of the Vienna Test System. It is therefore recommended that the above-mentioned paths are defined as exceptions in whatever tool is used.

### Recommendations on maintenance of the Vienna Test System

The operating system should be well maintained: the manufacturer's latest updates and patches should always be installed (in the case of major Windows updates, it is worth asking SCHUHFRIED first whether the updates have yet been tested). In the event of faults arising from a failure to install updates, consult the manufacturer of the operating system.

Please ensure that no programs are installed on the computer which could interfere with the presentation of tests (e.g. through high CPU usage or unwanted on-screen messages).

### Recommended monitors

We recommend monitors with a screen diagonal of 14"-27" and a resolution of at least 1280 x 1024. The resolution should not exceed 1920 x 1200. For CRT monitors the refresh rate must be at least 75 Hz.

### Note on licensing

To use the Vienna Test System 8, you must have a valid VTS license on a software or hardware dongle. The dongle can either be installed as software or provided physically in the form of a USB stick.

### Single workstation solution – local installation (VTS 8)<sup>1</sup>

Hardware	Minimum	Recommended	Software	
Processor <sup>2</sup>	Dual-Core	Quad-Core	Operating system	Windows 7 SP1
RAM	4 GB	8 GB		Windows 8.1
Graphics card	512 MB			Windows 10 <sup>6</sup>
Hard disc space	10 GB	SSD	Database	SQL Server 2008 R2 or higher <sup>3</sup>
Keyboard	✓		Miscellaneous	Microsoft Word (version 2007 or higher) <sup>5</sup>
Mouse	✓			
USB port for license dongle and for each additional peripheral device	✓			

\* When VTS is installed on a 32-bit version of the Windows operating system.

\*\* When VTS is installed on a 64-bit version of the Windows operating system.

<sup>1</sup> If these system requirements are not met, it is possible to use VTS 6. Apple-based hardware is not supported.

<sup>2</sup> Should be at least an Intel i5 (or equivalent). You are strongly urged not to use outdated or less powerful (e.g. i3, Celeron) processors.

<sup>3</sup> SQL Server 2008 Express (for Windows 7 and Windows 8 32-bit) or SQL Server 2016 Express (Windows 8 64-bit and Windows 10) is supplied or installed free of charge.

<sup>5</sup> MS Word is needed if Word reports are to be edited.

<sup>6</sup> It is not possible to install VTS 8.7 or higher on a PC with Windows 10 (32-bit version).

The N and KN versions of Windows 10 require installation of the Media Feature Pack.

## Server solution (VTS 8)\*

The hardware features of the server depend on the planned number of parallel test administrations. The following configuration represents a minimum that enables 80 or more tests to be administered in parallel. The Vienna Test System of course also allows for 100 or more tests to be administered in parallel. We shall be happy to advise you on possible system configurations for your purposes.

### Server

Hardware	Minimum	Recommended
Processor <sup>2</sup>	Quad-Core	
RAM	8 GB	
Hard disc space	10 GB	SSD
Network	100 Mb/s	

### Client

Hardware	Minimum	Recommended
Processor <sup>2</sup>	Dual-Core	Quad-Core
RAM	2 GB	4 GB
Graphics card	512 MB	
Hard disc space	1 GB	SSD
Keyboard	✓	
Mouse	✓	

Software	
Operating system	Windows Server 2008 R2 SP1 <sup>7</sup> Windows Server 2012 SP1 Windows Server 2012 R2 Windows Server 2016
Database	SQL Server 2008 R2 or higher <sup>3</sup>

Software	
Operating system	Windows 7 SP1 Windows 8.1 Windows 10 <sup>6</sup>
Miscellaneous	Microsoft Word (version 2007 or higher) <sup>5</sup>

## Special system components

To ensure that times are measured exactly, the following time-critical tests and test sets need to be presented using a USB response panel:

Tests: COG, DAUF, DT, DTKI, INHIB, MDT, MMG-C, NBN, NBV, RT, SIGNAL, STROOP, SWITCH, VIGIL, WAF, WAFA, WAFF, WAFG, WAFR, WAFS, WAFV, WAFW, ZBA

Test sets: CFADHD, CFD, CFSD, COGBAT, COGBATSV, DRIVE-AT, DRIVE-PL, DRIVEPLS, DRIVESC, DRIVESTA, FEV, SAAIR, SAMINE, SARAIL, SAROAD, SFMOTOR, SFTEAM, SLEEP, TAKIDS, TATEENS, TATEENS2

WAF, WAFA, WAFF/S3 and CFD can also be presented using a touchscreen (Windows 8 or higher). To ensure precise time measurement the touchscreen must be calibrated. The use of a capacitive touchscreen is required.

The PP-R test needs a USB port for the Peripheral Perception device. In addition, the screen size should not be larger than 22".

The WG test requires a screen size larger than 16".

Please note that Microsoft Word is needed to edit Word reports.

## Web Direct Testing – online-open mode

In general, the latest version of the browsers listed below is supported. Using browsers in an older version may cause (minor) changes in the way the test is presented.

	Windows	Mac OS X	Android	Linux Debian
Internet Explorer	✓	X	X	X
Microsoft Edge	✓	X	X	X
Firefox	✓	✓	✓	✓
Chrome	✓	X	✓	X
Opera	✓	✓	✓	X
Safari	X	✓	X	X
Chromium	X	X	✓	✓

## Network requirements

If the Vienna Test System is used on a network, a good, stable internet connection is required. The connection speed should be 100 Mbits p/s or more. At slower speeds the functionality of the Vienna Test System cannot be guaranteed. To ensure that the Vienna Test System works perfectly, it is also important to ensure that the cabling of the network and other network components is sound.

\* Apple-based hardware is not supported.

<sup>2</sup> Should be at least an Intel i5 (or equivalent). You are strongly urged not to use outdated or less powerful (e.g. i3, Celeron) processors.

<sup>3</sup> SQL Server 2008 Express (for Windows 7 and Windows 8 32-bit) or SQL Server 2016 Express (Windows 8 64-bit and Windows 10) is supplied or installed free of charge.

<sup>5</sup> MS Word is needed if Word reports are to be edited.

<sup>6</sup> It is not possible to install VTS 8.7 or higher on a PC with Windows 10 (32-bit version).

The N and KN versions of Windows 10 require installation of the Media Feature Pack.

<sup>7</sup> Windows Server 2008 R2 SP17 is not supported by HTML Admin Client.

## Safety features

If the Vienna Test System is used within the healthcare service, the use of the following devices may be required:

- ✓ Medical grade isolation transformer in accordance with EN 60601
- ✓ Galvanic medical network insulation in accordance with EN 60601 (if the computer is connected to a data network)

**Please ask your in-house health and safety officer.**

Products of SCHUHFRIED are developed and produced in accordance with EU Directive 93/42/EEC. The CE mark confirms that our products comply with technical safety regulations, electro-magnetic compatibility guidelines (EN 60601), bio-compatibility guidelines (EN 30993), product-specific requirements and underlying quality management standards.

**Please consult us before purchasing new equipment; we shall be pleased to help you select the most appropriate items for your purposes.**

## Note on Windows XP

The Windows XP operating system is no longer supported by Microsoft from April 2014. From this date, the proper functionality and compatibility of VTS 8 can no longer be guaranteed on this operating system. SCHUHFRIED therefore recommends using Windows 8 (or at least Windows 7).

**For Windows XP users to still be able to use the VTS, an appropriate VTS version (VTS 6) will be available until further notice.**

## System Requirements for VTS 6 (starting from CT 2920)

Please ensure that no programs are installed on the computer which could interfere with the presentation of tests (e.g. through high CPU usage or unwanted on-screen messages). We also recommend using SCHUHFRIED's calibration module to calibrate your monitor before measuring times precisely for the first time.

Hardware	Minimum	Software	
Processor <sup>2</sup>	Pentium or compatible CPU, min. 1 GHz	Operating system	Windows XP SP3
RAM	512 MB		Windows 7
Graphics card	512 MB		Windows 8.1
Hard disk space	1 GB		Windows 10 <sup>6</sup>
Keyboard	✓		Windows Server 2003
Mouse	✓	Miscellaneous	Microsoft Word (version 2007 or higher) <sup>4</sup>
USB-connection for license dongle and for each additional peripheral device	✓		

## Special System Requirements VTS 6

Some tests require additional or special system components: see "Special system components" (VTS 8) at page 2.

<sup>2</sup> Should be at least an Intel i5 (or equivalent). You are strongly urged not to use outdated or less powerful (e.g. i3, Celeron) processors.  
<sup>4</sup> MS Word is needed if automatic reports are to be generated after testing.  
<sup>6</sup> The N and KN versions of Windows 10 require installation of the Media Feature Pack.