Klippel R&D and QC System Computer Requirements

In short: your computer should run Windows 10 or Windows 11 comfortably.

RAM and CPU

KLIPPEL provides a wide range of applications with different requirements. The following will list CPU and RAM requirements, separated by different applications, followed by general requirements and recommendations.

All specifications are minimum recommendations. You will often be able to run the software on a lower-end system than specified, but with an increased likelihood of errors, frustrations and wasting time. There is no harm in better.

1.1 Minimum Supported System:

RAM	4 GB
CPU Clock	3GHz
CPU cores	2 cores (hyperthreading / SMT recommended)
Example	3rd generation Core i3

This is sufficient for occasional use and will be slow at times.
This is not recommended for frequent use or processing of large amounts of data.
This is not suitable for high load, continuous or automated measurements, such as
QC Quality Control at the production line, NFS Near Field Scanner or KET Klippel Endurance Test.

1.2 Recommended system for typical use:

RAM	16 GB
CPU Clock	3GHz
CPU cores	4 cores, or 2 cores with hyperthreading / SMT
Example	6th generation Core i3, i5 or i7

A higher performance CPU can significantly improve simulations (such as SIM Simulation and products using 3D visualization)

For QC Quality Control and KET Klippel Endurance Test, see the following paragraphs.

1.3 QC Quality Control on the production line

The “recommended system” above is sufficient for low-yield or low cycle time production. However, for high-yield automated production lines that run with little to no monitoring, and few opportunities for downtime and service, a high-end system is strongly recommended.

RAM	16 GB
CPU Clock	3GHz
CPU cores	6 cores, or 4 cores with hyperthreading / SMT Use a modern CPU, avoid Low Power CPU variants.
Example	8th generation Core i5, or 7th generation Core i7
Storage	Operating system and test data should be stored on SSD drive(s) 1 TB recommended

Note: Some QC production lines require a fixed maximum for the start-to-start time. The start-to-start time depends on many hardware and software factors, and due to the architectural constraints of typical computers, we cannot make any guarantees. However, above factors help with stable timing and general performance.

1.4 KET Klippel Endurance Testing

The recommended system, as described above, is sufficient for testing with about 8 KET channels running in parallel.

For running 32 channels or more in parallel [1)] we recommend:

RAM	32 GB
CPU Clock	3GHz
CPU cores	6 or 8 cores with hyperthreading / SMT Use a modern CPU, avoid Low Power CPU variants.
Example	8th generation Core i7
Storage	Operating system should be stored on an SSD drive. 1TB SSD drive is recommended for test data.
Adapters	Two ethernet interfaces to separate the KET network from normal application
Operating System	Windows x64 (64 bit) required for audio streaming components.

1) We support up to 32 channels in the default configuration with Dante Virtual Soundcard. For more channels, we recommend using multiple computers with up to 32 channels each. Please contact support for more information.

Further Requirements and Considerations

Display [1)]	1920 x 1080 pixel is recommended. 1280 x 800 pixel is sufficient.
Graphics Card	For 3D visualization make sure your graphics adapter supports basic 3D hardware acceleration.
USB Ports	Two **additional** USB ports are required for connecting the Klippel hardware device (KA3, PM) and the license dongle.
Disk storage [2)]	We strongly recommend using an SSD for the operating system and for the data you are actively working with. Some uses (such as KET Klippel Endurance Testing, QC Quality Control or NFS Near Field Scanner) may produce a lot of data in a short time – most of which you want to keep. Make sure you provision enough disk space!
Automated Backup	Make sure you implement a regular, automated archiving solution for all your data. Have sufficient storage, especially for applications producing a large amount of data. We take a lot of care for ensuring data integrity, but we cannot bring back data that is lost!

1) Note: currently, there are known scaling issues on some 4K+ display configurations.

2) While it is possible to work with data directly on a network share, plan ahead for keeping data local. Most data losses and many performance issues we are asked to help with can be traced back to problematic network infrastructure.

Which operating system is supported by dB-Lab?

The software dB-Lab is designed for Microsoft Windows. We recommend Windows 11.

Running dB-Lab on a Mac requires a virtual machine running a Windows OS. We have successfully tested Parallels VM (http://www.parallels.com). Also possible, but not so convenient is to install a second boot partition with Windows OS using Bootcamp.

	dB-Lab Version					
Operating System	***212 / QC7***	*210 / QC6*	*QC5*	*(206 / QC4)*	*(QC3)*	*(202 / QC2)*
Windows 11	✓	(✓)**	(✓)**	(✓)**		
Windows 10	✓	✓	✓	✓		
Windows 8*	✓	✓	✓	✓		
Windows 7*		✓	✓	✓	✓	
Windows Vista*				✓	✓	(✓)**
Windows XP*				✓	✓	✓

* Microsoft discontinued support
** officially not supported

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Designs and specifications are subject to change without notice due to modifications or improvements.