

# Virtual Computer Labs (bwLehrpool)

bwLehrpool is a service that can be used to create virtual teaching and learning environments in computer labs. These can be individually tailored for each course and can be accessed in every room that has bwLehrpool.

bwLehrpool offers the following advantages:

- Immediate availability, no deadlines such as beginning of the semester
- Reduction of all-purpose images suffering from software bloat
- Individually tailored environments
- Variety of OSes available (Windows 7, 8.1, 10, Ubuntu, Suse, Debian)
- Course computers available in every computer pool (or can be limited to specific rooms)
- Environment is not persistent, i.e., rebooting returns everything to the original state
- No need to copy the images onto each pool computer
- Virtualization reduces hardware dependence
- No need to log in to the Windows Domain, meaning quicker start/boot time.
- Responsibility for the VM is in the hands of the image creators, i.e. the lecturers or, if applicable, the teaching assistants
- Created VMs can be shared between universities
- Includes a software-controlled display switch
- Secured mode for online exams

In order to use bwLehrpool it is necessary to have access to a computer lab that has bwLehrpool installed. Users are responsible for creating the images that are needed in the courses.

bwLehrpool is available to all professors and teachers, who can request access via the responsible IT administrator.

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## User Guides

Guides for students and computer lab users:

[bwLehrpool logging in, selection and locking.pdf](#)

[bwLehrpool Anleitung als Plakat](#)

Anleitung für Dozenten und Mitarbeiter: [www.bwlehrpool.de](http://www.bwlehrpool.de)

## FAQs

For lecturers:	For those using the computer labs:
<ul style="list-style-type: none"><li>• <a href="#">How can I remotely access bwLehrpool?</a></li><li>• <a href="#">In which rooms can I use bwLehrpool?</a></li><li>• <a href="#">The computer boots locally instead of with bwLehrpool / no network connection</a></li></ul>	<ul style="list-style-type: none"><li>• <a href="#">How can I remotely access bwLehrpool?</a></li><li>• <a href="#">In which course environment can I find Office (Word ...), Adobe CC and the XEROX printer?</a></li><li>• <a href="#">In which rooms can I use bwLehrpool?</a></li><li>• <a href="#">The computer boots locally instead of with bwLehrpool / no network connection</a></li><li>• <a href="#">Where can I permanently store my data?</a></li><li>• <a href="#">Windows has disappeared, I can only see my mouse - Solution</a></li></ul>

# Support

Please report any problems to the [Service Desk](#).

The processing times correspond to the [Service Level Agreement](#).

## Data Backup / Hosting

bwLehrpool consists of the following components:

- Satellite server, on which the administration software is provided
- NFS Server (Network File System), on which virtual images are stored, which is booted in the computer rooms
- bwLehrpool suite, a java-based software to facilitate the administration of the virtual machines and events within bwLehrpool. This software enables the uploading and downloading of virtual machines and the creation of events, provides for the assignment of rights to virtual machines and events and offers advanced options. The bwLehrpool suite can be used with a bwIDM login
- Central master server, operated at the University of freiburg, which manages authorised satellite server installations and provides updates of the basic Linux system. Sends an anonymised statistics report weekly to the master server using an encrypted connection.
- PCs in the computer rooms, which support the network start and require sufficient memory and network bandwidth

The satellite server and the NFS server are operated in the university's Computer Centre and are subject to the standard [data protection policy](#).

**It should be noted that data that was deleted outside of the defined retention period cannot be recovered.**

The computers in the labs are not persistent. This means that they return to their original state with every reboot. Therefore, no data can be stored on these computers.

## Request Service

The service must be requested from the responsible IT administrator for your faculty. The administrator will clarify this with the contact person in the RMZ.

## User Responsibilities

The professors and lecturers who use bwLehrpool must create images using the templates and specifications requested by the RMZ and must keep these up-to-date. It is possible to receive support from the faculty to maintain these images.

## Legal

The most up-to-date IT and media services user regulations must be complied with.

The legal regulations regarding data protection and information security must also be observed.

When creating images, it must be ensured that only software packages licensed for members of Reutlingen University are used.