

## Lan/W-Lan

Within the building of the DHBW you have the option to use your private laptops with the wireless lan for accessing the internet. This manual is also valid for smartphones, tablet-pcs and almost any device which is wlan capable.

For doing so you have two possibilities:

1. Usage of the wired connection (LAN)
2. Usage of the wireless connection (WLAN)

Each of this possibilities is explained in detail below.

### Usage of the LAN-connection

Even if this is hardly used any more – you have the option to connect your laptop using a cable to the network. Please solely use the network jacks marked with an orange dot since only these are connected to the network.



### Usage of the wireless LAN-connection

Alternatively there's a WLAN available. It is protected by a WPA-key which you can obtain (or already have obtained) from the DHBW.

Before you can use the WLAN you have to do the following:

1. have your laptop activated for the network access at the DHBW
2. configure your laptop for the network access

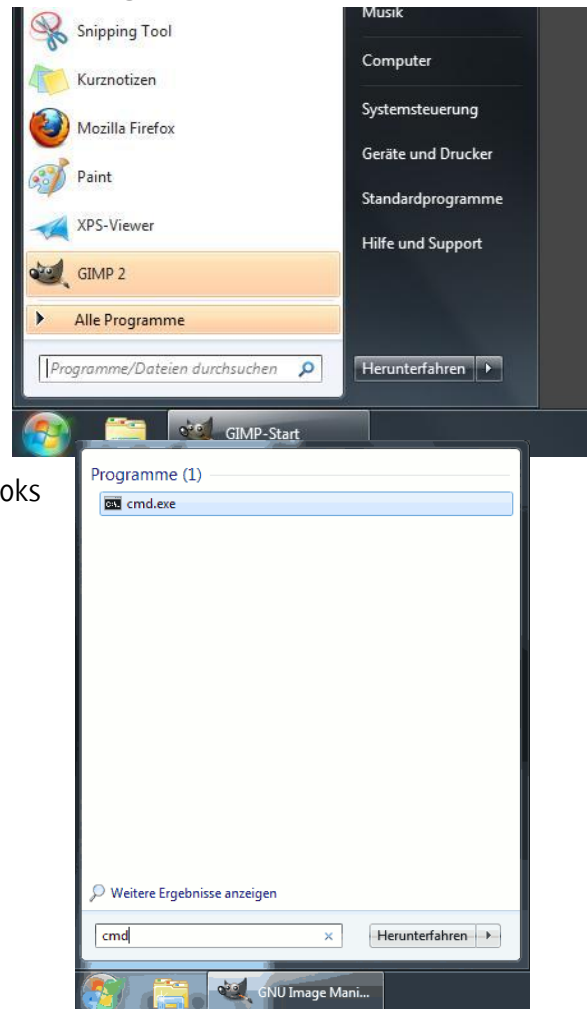
### Activate the WLAN-connection for you laptop

First, you have to activate your laptop for the WLAN access. To do so you can either fill out a form or register your laptop online. The online registration form is shown as soon as you try to access the internet after you are connected to the WLAN but have not registered your laptop yet. The other option, the paper form, is available at the computing centre of the DHBW.

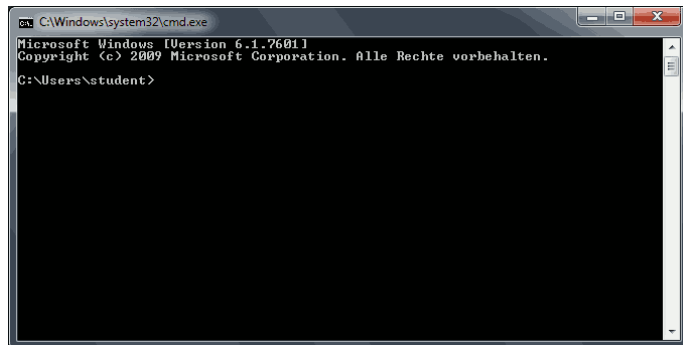
For registering your laptop you have to know its MAC-address. This address is something like a „house number“ of your laptop.

And here is how to find the MAC-address (example using Windows 7)

1. Click on the „Start“-button  
You should see something similar to the image shown to the right.
2. Please enter „cmd“ into the field named something like „Programs/ search“. This looks like this →  
Push the „Enter“-key afterwards.



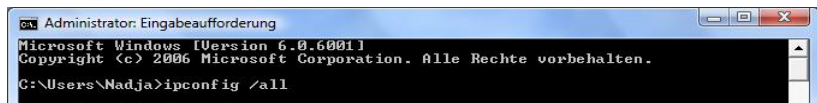
3. Now you will be shown a black window with a few grey lines within, something like this:



```

C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. Alle Rechte vorbehalten.
C:\Users\student>
  
```

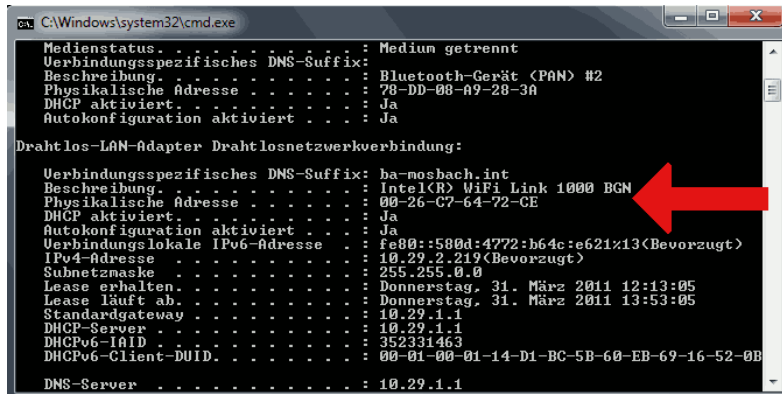
4. Please enter „ipconfig /all“ and hit the „Enter“-key.



```

Administrator: Eingabeaufforderung
Microsoft Windows [Version 6.0.6001]
Copyright (c) 2006 Microsoft Corporation. Alle Rechte vorbehalten.
C:\Users\Nadja>ipconfig /all
  
```

5. You will get a list with lots of numbers. This list provides several information about your network. One entry refers to your WLAN-network card. You can recognize it by something like „wireless“, „WLAN“, „kabellos“ oder „WiFi“ within its description.



```

C:\Windows\system32\cmd.exe
Medienstatus. . . . . : Medium getrennt
Verbindungsspezifisches DNS-Suffix:
Beschreibung. . . . . : Intel(R) WiFi Link 1000 BGN
Physikalische Adresse . . . . . : 00-26-C7-64-72-CE
DHCP aktiviert. . . . . : Ja
Autokonfiguration aktiviert . . . : Ja

Drahtlos-LAN-Adapter Drahtlosnetzwerkverbindung:
Verbindungsspezifisches DNS-Suffix: ba-mosbach.int
Beschreibung. . . . . : Intel(R) WiFi Link 1000 BGN
Physikalische Adresse . . . . . : 00-26-C7-64-72-CE
DHCP aktiviert. . . . . : Ja
Autokonfiguration aktiviert . . . : Ja
Verbindungslokale IPv6-Adresse . . : fe80::580d:4772:b64c:e621%13(Bevorzugt)
IPv4-Adresse . . . . . : 10.29.2.219(Bevorzugt)
Subnetzmaske . . . . . : 255.255.0.0
Lease erhalten. . . . . : Donnerstag, 31. März 2011 12:13:05
Lease läuft ab. . . . . : Donnerstag, 31. März 2011 13:53:05
Standardgateway . . . . . : 10.29.1.1
DHCP-Server . . . . . : 10.29.1.1
DHCPv6-IAID . . . . . : 352331463
DHCPv6-Client-DUID. . . . . : 00-01-00-01-14-D1-BC-5B-60-EB-69-16-52-0B
DNS-Server . . . . . : 10.29.1.1
  
```


You might have to scroll some lines to the top in order to find this entry. You have to look for something like the entry shown in the picture above. Right below the description of your network card the „physical address“ is shown. And this is exactly the number you are looking for. You need this number for the field „MAC-Adresse“ on the network registration form. Please copy this address (in this example it is the address 00-26-c7-64-72-ce) into the registration form.

Your registration is completed afterwards.

Now you have to configure the internet connection on your laptop.

## WLAN-connection (example using Windows 7)

The WLAN-setup is shown by using Windows 7 but can also be used using Windows XP. You should see a network symbol to the right within your taskbar.

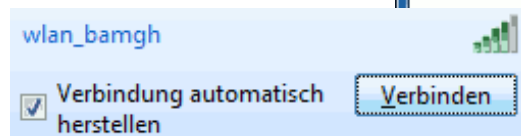
This symbol looks like this: 

If you click on that symbol you will get displayed a list of networks within range. Depending of your current location you might get shown several networks. For the campus the „wlan\_bamgh“ network is the one you are looking for. There is also a network named „wlan-dhmgh“ available, but this requires your personal certificate and does not yet cover all locations at the campus.




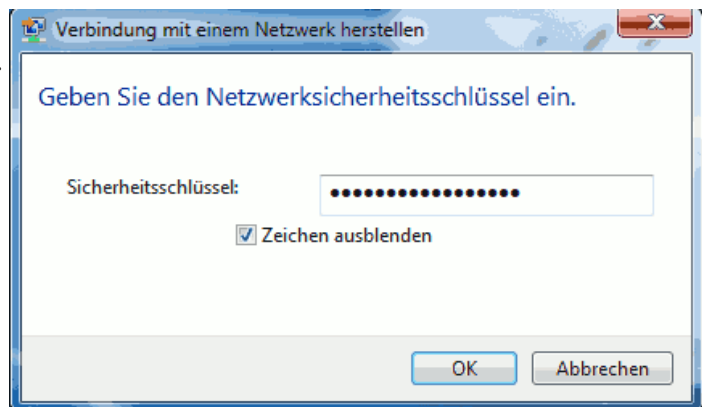
If you click on „wlan\_bamgh“ you can connect to the network. You will be prompted for the network key.

This key is available at the computing centre, maybe you already got that key. Enter that key and click on „connect“.



Please take care of upper- and lowercase letters when entering the key. As soon as you have entered the key you should get connected to the network.

The network symbol mentioned above should turn into something like this: 



If you see a little yellow triangle with an exclamation mark instead – don't mind, that's ok. This is because you still need to enter your username and your password for accessing the internet (see further below).

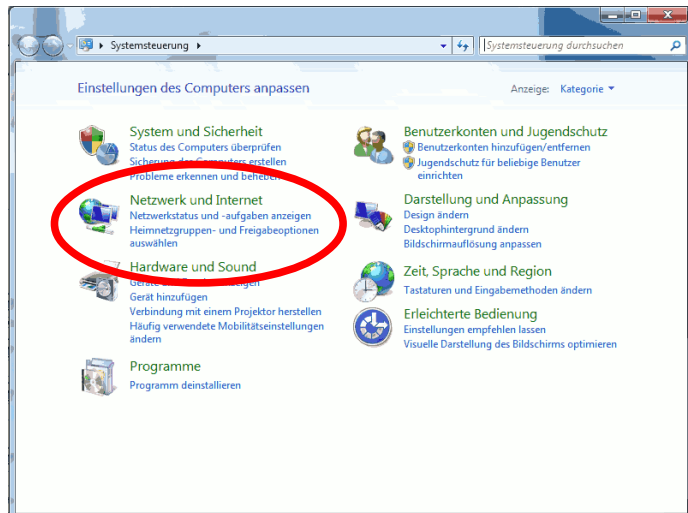
In order to get the internet connection to work you have to follow another step. You have to set up the proxy server. A proxy is some kind of cache which can accelerate the network access within networks with many users.

## Setting up the proxy server (example using Windows 7)

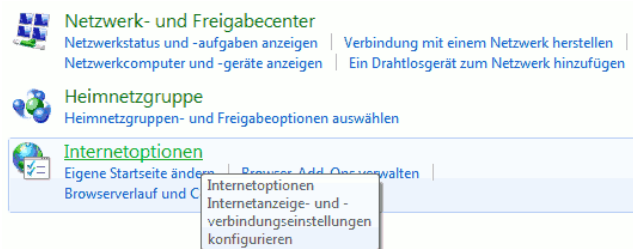
It's best practice to configure the proxy settings within the Windows system configuration. This has the advantage, that most applications inherit these settings and you don't have to configure your programs individually one-by-one. The procedure is the same for all Windows 7 editions (Home, Starter, Professional ...).

And here's how it works:

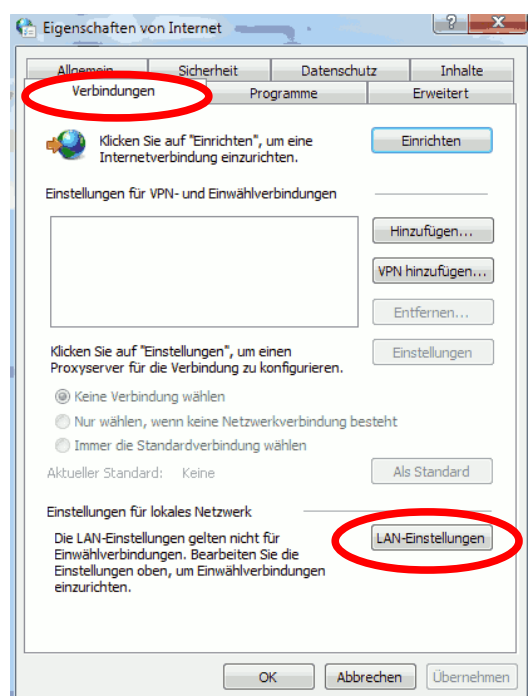
1. Click on „Start“ and on „control panel“.
2. Please select the entry „network and internet“.



3. Click on „Internet options“.

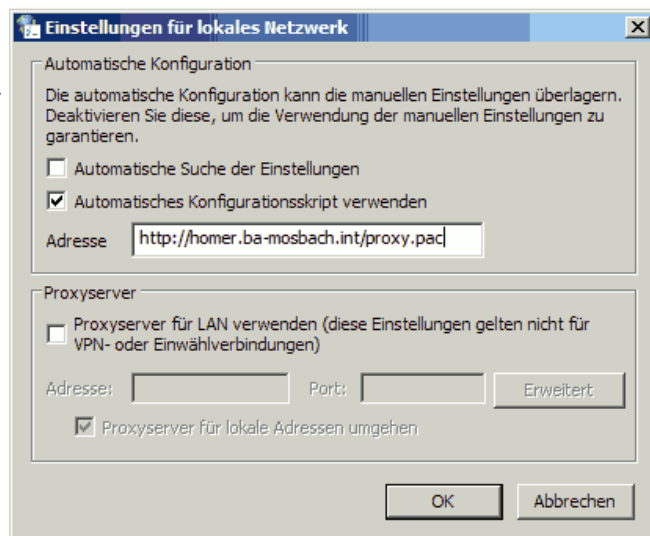


4. Within the internet options you will get a window with several tabs displayed. Please choose the tab „connections“ and click on „lan settings“



5. Enter „http://homer.ba-mosbach.int/proxy.pac“ in the field „use automatic configuration script“.

Confirm your entry by clicking on „OK“ and you're done.



Now you are ready to use the wlan connection. Depending on your internet browser and its version you might have to set up the proxy in your browser as well. But usually this is not necessary.

The settings you have just configured are valid system-wide and are therefore used for Internet Explorer and Mozilla Firefox. Old browsers like Mozilla Firefox version 3 or older don't use these system-wide settings and have to be set up individually.

In case of doubt please refer to the manual of your browser (or even better upgrade to a current release because of the very security reasons).

As soon as you open your browser you will be prompted for an username and a password. These are the same as those you use for logging on the PCs in the PC-lab.

Please be aware that some versions of the Internet Explorer require the prefix „ba-int\“ in front of your username. Thus the username „max.mustermann“ becomes „ba-int\max-mustermann“. This is not required for Mozilla Firefox.

## Setting up other software

Almost any software which communicates via the internet has such proxy-settings. Because there is many software available it is impossible to list the procedure for all software packages. In principle these settings are always the same.

Some software e.g. skype or several instant messaging software you have to lodge your username and your password with the proxy data. In such cases (expecially if you use a Mac or an iPhone) you will see some fields like „username“ and „password“ next to the proxy setting fields. Please enter your username and password into the corresponding fields then.