

Introduction to FIM Computing Facilities WS 2019

Faculty of Computer Science and Mathematics, University of Passau

Klaus Schießl©10/2019, Version 1.0

1 Overview computer labs and accounts

1.1 General computer labs and accounts

In most of the buildings on the university campus there are **general student computer labs**. In the building IM you find those labs in room 044 to 047. On all PCs in those rooms you find a standard office environment (Windows with Microsoft Office software).

Please login in those labs with your **general university account**. You should already have gotten such an account as part of your enrollment process. This account not only allows access to certain computer labs but will be used for almost all **official activities** on the campus (course registration, e-mail communications, WLAN-access...). Your general **university account** is named similar to: smith094 (family name and some digits).

1.2 FIM computer labs

The FIM maintains a number a student computer labs which differ from the general student computer labs in the installed **FIM specific software environment**. In these FIM labs you find the software you need to do exercises related to FIM courses and a number of tools to work on your bachelor- or master-thesis. Furthermore, some commercial software for software engineering or mathematics (Matlab or Maple) is installed.

Using computers in FIM student computer labs requires a **FIM computer account**, which is different from your general university account. The **FIM account name** consists of your family name, eventually combined with initials, and doesn't contain any digits. Examples: smith, smithj or smithjoe. The FIM account is required for certain FIM courses, entitles you to install a choice of licensed software on your own devices and maybe used for FIM internal communication (for example when you will be informed that your FIM account expires). This account will also give you a personal Web site, an email address, and a quota-enabled disk space. **Please create your FIM account online with the FIM Account Management System AMS**. Login in a ZIM-PC-Pool with your general university account and load the website <https://ams.fim.uni-passau.de/>

Locations and opening hours:

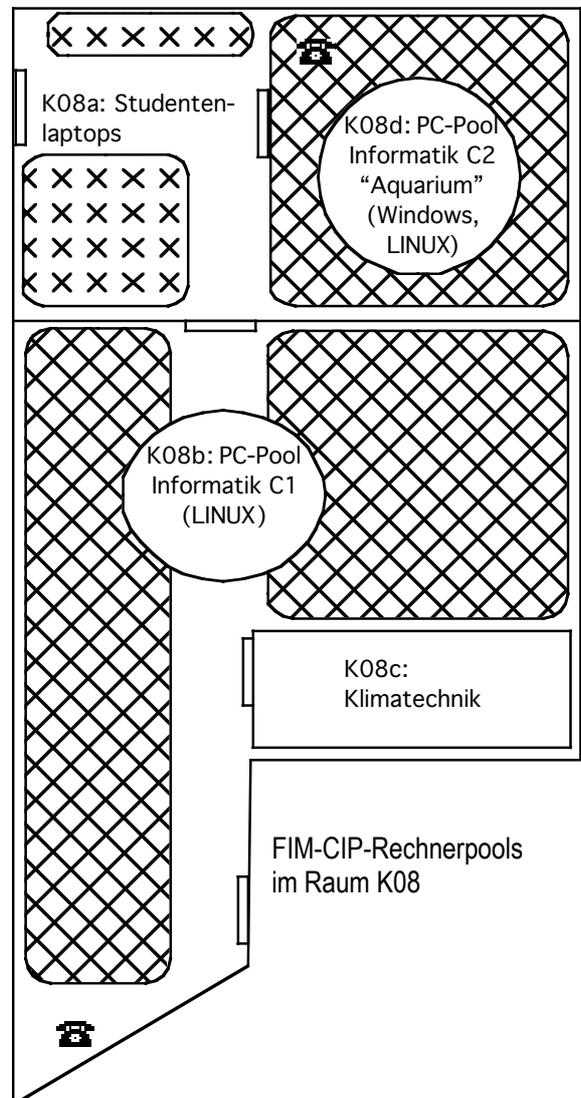
All FIM computer labs for use by students are situated in the building **IM, Innstraße 33**:

Open-access computer labs (rooms are situated downstairs and are accessible 24h/day):

- **Room K08b** (PC-Pool Informatik C1).
Phone: 0851/509-3015
- **Room K08d** (PC-Pool Informatik C2 „Aquarium“): Phone 0851/509-3136

During closing times of the building IM (at night or over the weekend) you are able to enter the building with your campus-card. There is a **card reader** for that card on the front door of the building.

Guided Exercising: Lab Room 028 IM (only accessible during guided exercises)



Operating systems in the FIM student computer labs:

Room K08b: Only **LINUX** available. Please don't turn off or reset computers in this room because they may be used for long term computing purposes.

Room K08d and room 028 IM: **Windows and LINUX** available. You decide during the boot process which operating system will be used.

2 IT-support

2.1.1 Support for general IT-services of the university

First of all please have a look at the **ZIM support website**: <http://zim.uni-passau.de/>

On this website there is also a special section for new students: <http://www.zim.uni-passau.de/o-woche/>

To get **support for general university computer labs** and **general university accounts** please contact the **ZIM-user support** in **room 119 IM**. If you have for instance problems connecting your own devices to the university network after reading the information on the ZIM-Website you'll get help here.

2.1.2 Support for FIM computer labs, -accounts and -services

First of all please have a look at our **support website**: <http://www.fim.uni-passau.de/it-dienste/>

We have also got some information in English for you: <http://www.fim.uni-passau.de/en/it-services/>

<p>Contact: Klaus Schießl (Dipl.-Inf.) Innstraße 33, room 017 IM, phone 0851/509-3012 E-Mail: schiessl@fim.uni-passau.de Franz Rautmann (Dipl.-Ing.) Innstraße 33, room 014 IM, phone 0851/509-3013 E-Mail: rautmann@fim.uni-passau.de</p>	
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By Phone: In each FIM computer lab there is a phone. Dial 3012 (Schießl) or 3013 (Rautmann) to get support.

By Mail: support@fim.uni-passau.de.

Guided tours through FIM lab rooms: Only on request (please mail to support@fim.uni-passau.de) for groups with a least 6 people. A tutor will explain to you the most important facts about the FIM IT facilities during an one hour tour.

3 Using the FIM student computer labs

3.1 Computer lab guidelines

Failure to comply with the following rules will result in disciplinary action and could mean removal from the University of Passau!

- Use of the lab is restricted to the current students, faculty, and staff.
- Do NOT share your password with anyone
- No games: there is a high demand for the PCs throughout the day
- No food, drinks, pets, or bicycles are permitted in the labs
- Children are not permitted in the labs without the supervision of their parents.
- The use of profanity and loud conversations are not permitted in the labs, as it is a disturbance to other users. This also includes listening to music with the earphone volume turned too high or students talking on cell phones. Students engaged in loud, disruptive conversations in the labs would be asked to leave.
- When all workstations are in use and students are waiting to use a computer, the lab monitor will ask those using computers for recreation (games, web browsing not related to class/instruction, etc.) to relinquish their seats to those needing to do their academic work.
- You cannot copy any software whatsoever without permission of the copyright owner.
- You must not use the computer system to store, transmit or display offensive material, such as sexual, pornographic, racially offensive or abusive material. If you have any doubt about any material's suitability, then don't touch it. Web access is monitored both within and outside our own department.
- You may not record on a computer system any information concerning living persons without authorization.

- Do not shut down or switch off PCs in the LINUX lab K08b. These are often remotely accessed via the network throughout the day or you will kill processes from somebody's master thesis. When you have finished, simply Log Off.
- If PCs (hard- or software) get unusable in some respect do not leave the room without giving information about the defect component to the FIM Support team. You may inform us via phone or email.
- Do NOT unplug any cables – there is a separate area if you wish to connect a laptop, and Wi-Fi is available throughout the room
- Switch off mobile phones. PLEASE!

3.2 Logging on and off

When you have got your FIM account you can log on to all FIM student computer labs. Depending on the available operating systems you may choose to log on under LINUX or under WINDOWS.

3.2.1 Logging on and off using graphical interfaces

The graphical interfaces and the corresponding login windows differ depending on the operation system you use. But all login windows have in common that you have to **type in your FIM username and the appropriate password** for the chosen operating system.

- LINUX log on and log off
 - **First Log on:** After input of username and password you can set a **default window-manager** (for instance KDE-Plasma, xfce...) which will be used automatically for all following log ons. To do so press the arrow-symbol below on the left side.
 - **Log off from the KDE-Plasma user interface:** Move the mouse pointer to the K-Button in the left corner, press the left mouse button and choose logout
- Windows log on
 - For a successful login you must choose log on under the **domain 'WINCIP'**

3.2.2 Password management

3.2.2.1 Changing your FIM passwords with the FIM AMS

Please change your password regularly. Initially your FIM password is the same for both available operating systems (LINUX and Windows), but the underlying password schemes are different. If you choose to change your LINUX password with the standard LINUX command `passwd`, your Windows password won't be synchronized automatically. Therefore we strongly advise, to use the FIM Account Management System AMS in order to change both of your FIM passwords in one action: <https://ams.fim.uni-passau.de>

3.2.2.2 Password security, Password forgotten

You will now have to choose a secure password for yourself. Password policy:

1. Minimum password length: Eight characters
2. Passwords must include at least 3 out of the following 4 categories: lower case letters, upper case letters, digits and special characters
3. Prohibition of words found in dictionaries
4. Prohibition of words found in the user's personal information
5. Prohibition of passwords that match the format of calendar dates, telephone numbers or other common numbers
6. Never use the same password for more than one account
7. Never communicate a password by telephone, unencrypted e-mail or instant messaging
8. Never write down a password
9. Make sure that you choose a password you can remember (even after a long summer holiday!).

Weak passwords are rejected by the system. If you have **forgotten** your FIM password please login in an ZIM-PC-Pool and reset your FIM-Password by using the FIM AMS: <https://ams.fim.uni-passau.de>

3.3 Files and directories

Your files are stored on a **central FIM fileserver**. This means that you can access your files from any computer in the FIM student computer labs. When you log on to any PC in one of these labs you will automatically be linked to your own file space. You have a **storage allocation (quota) of 8 GB**. You will need to purge files regularly to keep well within this limit. If you exceed this quota, you will find that you can't login anymore, your programs will not run and you can't receive mails to your FIM mail account anymore due to lack of disk space.

3.4 Changing the language of the LINUX Graphical User Interface

International Master students of the FIM will welcome the possibility to change the language of menus in the LINUX Graphical User Interface in one simple step:

Login in one of the FIM computer labs and open a LINUX command shell. Type in the following command:

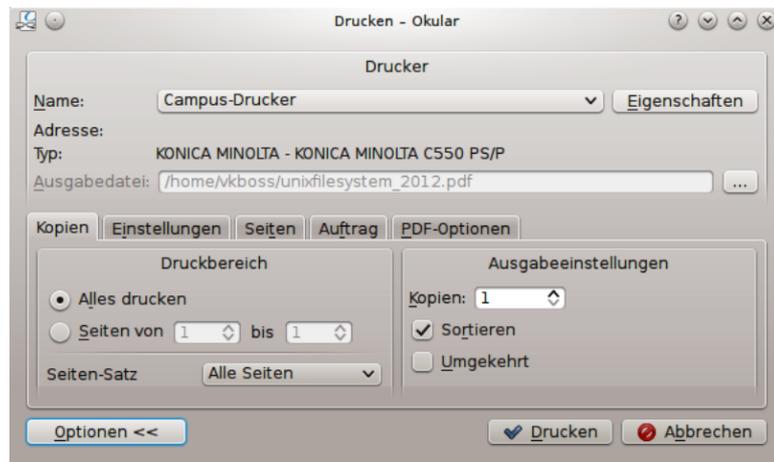
change_language en

Press Return to execute this command. To make this change effective please logout now. Beginning with your next login your menu-language will be permanently set to English.

4 Printing

In all buildings over the University Campus you find **Multifunction-Printing devices** for making copies of your work, scanning and printing. These devices are called „Campus printers (**Campusdrucker**)“. You should be able to print to these devices from whatever software package you happen to be working on. To do so you typically choose the Print function from the menu and then the appropriate kind of printing devices (Campusdrucker). Example:

- Choose Campus-Drucker in the printer menu.
- Hints:
- To minimize printing costs, define a range of pages which shall be actually printed.
- In the printer options you can choose between black & white or colour, which is more expensive.
- After choosing your print options press the Print button. A new window appears in consequence. **Please type in the number of your Campus-Card** in this window to place your print job in the printing queue.



All Campusdrucker print jobs are collected on a central print server. To actually print your document, go to one of these Campus printers and run your Campus-Card through the reader. Choose PRINT from the options menu on the printer. Your document should now be listed and you may now confirm that you want to print out this document. After the document has printed, make sure not to forget your Campus-Card in the card reader.

Printing costs 5 cent per sheet for black & white and 20 cents for colour prints. You have to buy credits using the machines situated next to most of the Campus printers. Your print credit is linked to your Campus-Card.

Printing Problems

- **The Campus printers are not managed by staff from the University but by staff from a local copy shop.** This shop has a little office on the campus downstairs in the WiWi building. Further information concerning the Campusdrucker-system you find on the website www.zim.uni-passau.de.
- Some **older LINUX software packages** (i.e. xemacs or gv) **may not allow you to choose Campusdrucker as your printing device.** If you are not able to define a printer for output, please save your document to disk. For printing your document then open this document in another application which is able to give you a correct choice of available printers. To print your documents, you may use the editor „**kate**“ for documents of type text and the application **okular** to print all other types of documents.

5 Document scanners

You may choose to use the **Campusdrucker** devices for scanning. But have in mind that each **scan costs** some cents on these devices.

As an alternative you can use **specialized document scanners** you find all over the campus in the rooms of the **library**. These specialized devices are very fast and you are not charged for your scans.

6 Electronic Mail

6.1 FIM Mail account and general university mail account

Besides the official mail server of the university there is a dedicated FIM mail server to support FIM specific requirements of teaching and research. With each FIM user account you are automatically enabled to make use of the FIM Mail server. Whereas you receive official emails from the university in your general university mail account (please make sure you don't miss any e-mails on this official account) we use your FIM mail account to inform you about FIM specific affairs.

For now, your FIM mails are stored in folder called Maildir in your LINX home directory, but this may change in the near future. So please don't change the content of this folder manually, because your changes will be gone when we decide to move your Maildir to another location. Please keep in mind, that the content of Maildir counts to your filesystem quota and you can't receive any more emails, if you have exceeded your filesystem quota.

Structure of FIM email-addresses: accountname@fim.uni-passau.de

Example for FIM user account vkboss: vkboss@fim.uni-passau.de

6.2 Web-based access to FIM and University mail accounts

Open a web browser. If you want to gain access to your **general University mail account**, open the website <https://email.uni-passau.de/>. In order to access your **FIM mail account**, open the website <https://webmail.fim.uni-passau.de/>.

Give the appropriate username and password and you have access to your mailbox. You can even send mails from this web-based email interfaces.

6.3 Accessing your FIM and University mail account by using an email client

With our lab PCs, your own personal computer or your mobile device you can set up any email client to access FIM and University mail accounts. Different email applications have different setup procedures. The key information to configure your email client for access to your FIM and University mail account is given in the next chapters.

After email client configuration send yourself an email to make sure that your new email address works!

6.3.1 Configure your mail client to send (smtp) and receive (IMAP, POP3) emails via the FIM mailserver

Configure your mail client to send Email using the **FIM mailserver**:

FIM smtp: Server name: "mail.fim.uni-passau.de" Username: Your FIM user account Password: FIM-Password for LINUX log on Port: 587 Security: SSL/TLS, Authentication method: Password (normal).

Configure your mail client to get **access to your FIM mailbox**:

You can access your FIM mailbox with IMAP. Using IMAP your mails will stay on the FIM mail server and you can easily access them from different mail clients (i.e. mobile devices, your laptop etc.).

FIM IMAP: Server name "imap.fim.uni-passau.de" Username: Your FIM user account Password: FIM-Password for LINUX log on Port 993 Security: SSL/TLS, Authentication method: Password (normal).

6.3.2 Configure your mail client to get access to your general university mail account

It's very important to read the content of your official university mailbox on a regular base, because all official announcements go this mail account. You can easily create an additional account on your mail client to access the university mailbox:

IMAP-Server:	email.uni-passau.de (Port 993)
Connection security:	SSL/TLS
Account:	Your general university user account (i.e. meier13)
Passwort:	Password of your general university account
SMTP-Server:	email.uni-passau.de (Port 587)
Connection security:	STARTTLS (using Mailclient Thunderbird) or SSL/TLS
Kennung und Passwort:	ZIM-account data like above IMAP

6.3.3 The email client thunderbird

In all FIM student computer labs the mail client thunderbird is installed. We recommend to configure thunderbird accounts for the FIM mail account and the default university mail account. A list of messages received in your Inbox will be automatically displayed. You can read a message by double-clicking it. To delete or reply to messages or to write new ones, use the icons on the toolbar.

6.3.4 Optimizing filespace for your FIM mail account

Don't forget to clean-up your Inbox on regular basis. Even if your Inbox seems to be empty, deleted mail files are still in the Trash. So empty the trash after deleting mails.

6.4 Forwarding your University mails to other mail accounts

It's easy to forward incoming mails on your University mail accounts to your main mail account.

In order to learn how email forwarding works for your general University email account please check the website www.zim.uni-passau.de.

To **forward incoming mails on your FIM** mail account to other mail accounts **log on with LINUX** and modify a file named **.forward** in your home directory. If you are not familiar with editing files use the editor kate. Example:

```
vkboss@gmx.de, schiessl@web.de
\vkboss
```

Put the name of your main mail account(s) in line 1 of the file. If put you a backslash followed by your FIM account name in **line 2**, you will keep a **local copy** of all forwarded mails. If you omit line 2, all incoming mails on your FIM mail account will be forwarded to the mail accounts in line 1 without a trace in your FIM mailbox.

Important:

- Don't forget the backslash at the beginning from line 2. Without the backslash incoming mails will be bounced between the mail accounts in line 1 and the FIM mail account.
- If you change the content of the file **.forward** immediately send yourself a test mail to your FIM account to check the correctness of **.forward**!

6.5 SPAM mails and mails containing Viruses

All mails (incoming and outgoing) are checked, if they contain SPAM or viruses. **Mails containing SPAM or Viruses will be rejected by our FIM mail server.**

In case you get a SPAM mail, which has passed through our SPAM filter, please don't answer to sender of the SPAM mail. In most cases the sender you can see in the mail header isn't the real sender. That's why it doesn't make any sense to write back a complain about the SPAM mail.

7 VPN and Eduroam: Connecting your device (Smartphone, Laptop...) to the university network

When you are on campus or at home, you can connect your device to the University network (and thereby to the internet) using a wireless connection or an Ethernet connection. To authenticate your device, the services Eduroam and VPN are available.

Eduroam is the best manner to **connect your device to the local network when you are on campus**. Eduroam is an international initiative that allows members of educational establishments to gain internet access at the home site (here: University of Passau) and other member sites easily, using credentials from their home site in a secure manner. For details how to configure Eduroam on your device please follow the instructions on the ZIM website. Authentication details (username/password) are configured into the user's computer and tested at the home site. Once Eduroam is up and running the user's computer can connect (usually wireless) to the network of the home site and to the networks of all other members of the Eduroam initiative. More information about Eduroam: <http://www.zim.uni-passau.de/dienstleistungen/netzwerk-und-server/netzwerkzugang/eduroam/>

Eduroam it is not suitable to make your device a virtual part of the University network when you work **at home**, because german telecom providers are not members of the Eduroam initiative. Making your device a part of the University network may be necessary for example in case you want to gain access to web content which is only available in the University of Passau intranet. To access this kind of information you need a device which has (at least virtually and temporary) an IP-address which belongs to the University of Passau IP-address-block. In this case you will have to use a service named **VPN (Virtual Private Network)**. To use this service, you'll have to download VPN-software from the ZIM website. When you are at home and need access to resources which are only available for devices in the University of Passau intranet, connect to the internet as usual, then start the VPN software and your device will become a virtual member of the network of the University of Passau.

8 Free access to licensed software

As a student of the University of Passau or the faculty of computer science and mathematics you are entitled to download and / or use software in the context of special license agreements.

Microsoft-Software

As a student of the University of Passau you are entitled to use Microsoft Office 365 for free.

Sophos-Antivirus

Students and employees of the University are entitled to download and use Sophos Antivirus.

For further details please see

<https://www.uni-passau.de/bereiche/beschaefigte/finanzen/it-einkauf/software/sonderkonditionen/>

Further products for FIM students only: <http://www.fim.uni-passau.de/it-dienste/lizenzprogramme/>

Available Software: UML-development: JetBrains **IntelliJ**, Python: **Pycharm**, **Matlab** and **Maple** (for installation on University devices only, e. g. not for use on your own device), **Maple** (for lab use only)

Please contact us directly if you want to make use of these programs.

9 Using FIM computing facilities for your bachelor or master thesis

If you have to do some long term computing or you need compute power for your thesis please don't bother to contact us. You'll get useful hints which lab PCs will be suitable for this purpose and what are the right methods to setup your processes. It's even possible to give you access to a dedicated virtual machine on which you can implement your own computing environment.

Please keep in mind to inform us in advance if you have to run processes with an execution time longer than one day. That will prevent your processes from being killed during our daily system clean-ups.

10 Further Information

<http://www.fim.uni-passau.de/it-dienste/>

<http://www.zim.uni-passau.de/>