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Login

Start screen

- Ctrl-Alt-F5 Linux terminal (leibniz)
- Ctrl-Alt-F6 Windows (wronski)
- Ctrl-Alt-F7 Linux graphical (leibniz)
- Ctrl-Alt-Backspace RESET

Password

- Choose a strong password
 - ◆ lowercase, uppercase, number at least one of each
 - ◆ at least 8 characters
 - ◆ don't include your own name, nickname, login name
 - ◆ try not to use accents or 0 (zero)
- how to change your password:
 - ◆ Linux: yppasswd (in terminal)
 - ◆ Windows: Ctrl-Alt-Del

Quota

- Linux: 200MB
 - ◆ quota (in terminal)
- Windows

- ◆ size of H drive (from total commander or explorer)

Keyboard layout

- On wronski the default layout is Hungarian, but you can change it after login
- On leibniz the default layout is English, but you can change it after login
- US English
- Hungarian

Mailing

- You can reach your emails on <https://webmail.math.bme.hu/>.
- You can forward your emails to another email address:
 - ◆ After you log in, click on the gears (upper right): **Beállítások -> Vakáció -> Haladó beállítások**
 - ◆ Put your email address in the **További címeim** field, then change the **Beérkez? üzenet akció** drop down menu from **Megtartás** to **Átirányítás ide**
- When you write to others from the university, we would like you to use your math.bme.hu email address.
- There is a way to write emails from your math.bme.hu address through gmail.
 - ◆ In gmail click on the gears (upper right) -> **Settings -> Accounts and import -> Add another email address**
 - ◆ In the popup window write your math.bme.hu address then click on **Next Step** and write your password (the one used on linux) into the password field, finally click on **Add Account**.
 - ◆ From now on whenever you write an email there will be a drop down menu **From** so you can choose which email address to send the email from.
- You can write an email from the terminal as well:
 - ◆ On Leibniz:

```
$ mail -s "subject" "someone@mail.org"
Dear Someone,
```

```
This is a mail!
```

```
Best,
Me
$ _
```

To stop writing the mail you need to press **Ctrl+D**.

If you are using other mailing software, you may find these useful:

- imap-ssl: imap.math.bme.hu :995 SSL/TLS linux password
- submission: smtp.math.bme.hu :587 STARTTLS linus password

Software

- Windows [1]
- Office [2]
- Mathematica [3] (we will give out keys for everyone)

Network connection

- You can't just plug in a network cable into your laptop, it will not connect you to our network.
- Wifi
 - ◆ eduroam
 - ◇ encrypted WPA2-Ent
 - ◇ most European universities use eduroam, you can use your account anywhere
 - ◇ <http://net.bme.hu/wlan/eduroam-bme.php>
 - ◇ Username, password: <https://accadmin.hszk.bme.hu/> (username: something@hszk.bme.hu, password: you need to set it first, bottom of the page)

Linux basics

File structure

- Properties:
 - ◆ Tree structure
 - ◆ / : root folder. The start of the file structure.
 - ◆ folders:
 - ◇ general
 - ◇ special (e.g. /dev/cdrom)
 - ◇ catalogue
- Some catalogues
 - ◆ **/home/**: User folders.
 - ◆ **/boot/** : Files needed to boot up.
 - ◆ **/tmp/** : Temporary files.
 - ◆ **/dev/** : Devices (HDD, mouse, etc.)
 - ◆ **/mnt/** : Mount points (e.g. pendrive)
 - ◆ **./** : Current folder.
 - ◆ **../** : Parent of the current folder.
 - ◆ **~/** : The home folder of the user, same as the \$HOME environmental variable.
 - ◆ Everyone has a home folder at **/home/student/felhasznaloi_nev**. In this home folder a folder named **public_html** contains their homepage.
 - ◆ **~/.*** contains user settings e.g. **.bashrc**, **.config/**, **.forward**

General programs

- terminal: Applications menu -> System Tools -> Konsole
- Midnight Commander **mc**
- **top**
- editors:
 - ◆ gedit
 - ◆ mcedit, nano,
 - ◆ for the brave: emacs, vim (war of the editors)
- list of programs: **help**
- help yourself:
 - ◆ **info <command>**
 - ◆ **man <command>**
 - ◆ **<command> --help**

Shortcuts

- Clipboard
 - ◆ select something with your mouse, right click
 - ◆ Ctrl+Insert, Shift+Insert
 - ◆ varies by applications (usually Ctrl+C, Ctrl+V)
- navigation
 - ◆ TAB: completion
 - ◆ HOME: beginning of line, END: end of line
- terminal
 - ◆ up, down arrows: history
 - ◆ Ctrl+R search the history

Reaching the Leibniz server from home

- From a file editor:
 - ◆ File -> Connect to server...
 - ◆ Service type: FTP (with login), or SFTP
 - ◆ Server: leibniz.math.bme.hu
 - ◆ Port: 80
 - ◆ Folder: (empty)
 - ◆ User name: your username
- From a terminal:
 - ◆ **ssh username@leibniz.math.bme.hu**, where the **username** is your username, with this you can run commands on leibniz
 - ◆ **scp username@leibniz.math.bme.hu:~/prac1.txt ./** with this you copy the file **prac1.txt** from leibniz to your current folder
 - ◆ **scp ./gyak1.txt username@leibniz.math.bme.hu:~/** with this you copy the file **prac1.txt** from your computer to leibniz

Windows basics

The Windows file structure

- Drives are letters followed by a colon:
 - ◆ C:\ System
 - ◆ D:\
 - ◆ E:\ ...
 - ◆ There are network drives, these start with double backslash: \\wronski
- current and parent folder : . and .. respectively
- programs: C:\Program Files, C:\Program Files (x86), rarely needed to reach directly
- system: C:\Windows\System32
- home folder: H:, Z:\Homes\<username>

General programs

- Notepad++ (free software)
- Task manager
- Explorer
- Total Commander (free software)

Shortcuts

- Clipboard
 - ◆ select something with the mouse, right click -> copy, cut, paste
 - ◆ Ctrl+C, Ctrl+V, Ctrl+X, Ctrl+Z, Ctrl+Y
 - ◆ Ctrl+Insert, Shift+Insert
 - ◆ varies by applications
- Moving the windows
 - ◆ Win+arrows
 - ◆ Alt+Tab
 - ◆ Win, Win+D, Win+S
 - ◆ Alt + character (menu)
 - ◆ Tab: switches between buttons and fields in programs
- moving the cursor
 - ◆ Shift + arrows: select
 - ◆ Ctrl + arrows, jumps words (Ctrl+Shift + arrows)
 - ◆ HOME: beginning of line, END: end of line

Reaching Leibniz from a windows machine

- Számítástechnikai tudásbázis (sadly these are only available in hungarian at the moment)
- ssh: Putty használata
- scp: WinScp használata
- graphical: XMing használata, grafikus felület emuláció Windows alatt

Emulating linux on a windows machine

There are many ways to emulate a linux on your windows machine

- Live operating system, with this you can try linux without having to install anything. You have to boot from a live CD or a USB, for this you have to change your boot priority.
 - ◆ live Linux pendrive
 - ◆ live Linux CD
- Virtual machine, running a linux through a windows in parallel
 - ◆ VirtualBox
 - ◇ Windows 8 or 10 is a requirement
 - ◇ Windows 10
- Emulating just the function of the linux terminal
 - ◆ CygWin

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