

Linux: Ein Überblick

Werbung

Wer sind wir? Die Linux-AG!

<https://www.linux-ag.uni-tuebingen.de/presentation/index.xhtml>

Und wer seid ihr? (1/10)

- Microsoft

Und wer seid ihr? (2/10)

- Microsoft
- cmd

Und wer seid ihr? (3/10)

- Microsoft
- cmd
- Android

Und wer seid ihr? (4/10)

- Microsoft
- cmd
- Android
- Linux

Und wer seid ihr? (5/10)

- Microsoft
- cmd
- Android
- Linux
- Ubuntu / Mint

Und wer seid ihr? (6/10)

- Microsoft
- cmd
- Android
- Linux
- Ubuntu / Mint
- Distribution

Und wer seid ihr? (7/10)

- Microsoft
- cmd
- Android
- Linux
- Ubuntu / Mint
- Distribution
- Terminal

Und wer seid ihr? (8/10)

- Microsoft
- cmd
- Android
- Linux
- Ubuntu / Mint
- Distribution
- Terminal
- Bash

Und wer seid ihr? (9/10)

- Microsoft
- cmd
- Android
- Linux
- Ubuntu / Mint
- Distribution
- Terminal
- Bash
- zsh

Und wer seid ihr? (10/10)

- Microsoft
- cmd
- Android
- Linux
- Ubuntu / Mint
- Distribution
- Terminal
- Bash
- zsh
- Compilerflag

Und wer seid ihr? (11/10)

- Microsoft
- cmd
- Android
- Linux
- Ubuntu / Mint
- Distribution
- Terminal
- Bash
- zsh
- Compilerflag
- Off-By-One-Error

Am 6. Juli ist der Tübix (Tübinger Linuxtag):

- <https://www.tuebix.org/>

Was machen wir heute?

- Was ist Linux? Warum nicht Microsoft?
- Anwendungsprogramme: Was sind die Alternativen?
- Standardprogramm für Texte, Präsentationen, Excel
- Dateimanager
- Überblick über verschiedene Distributionen
- Grundlegender Umgang mit dem Terminal

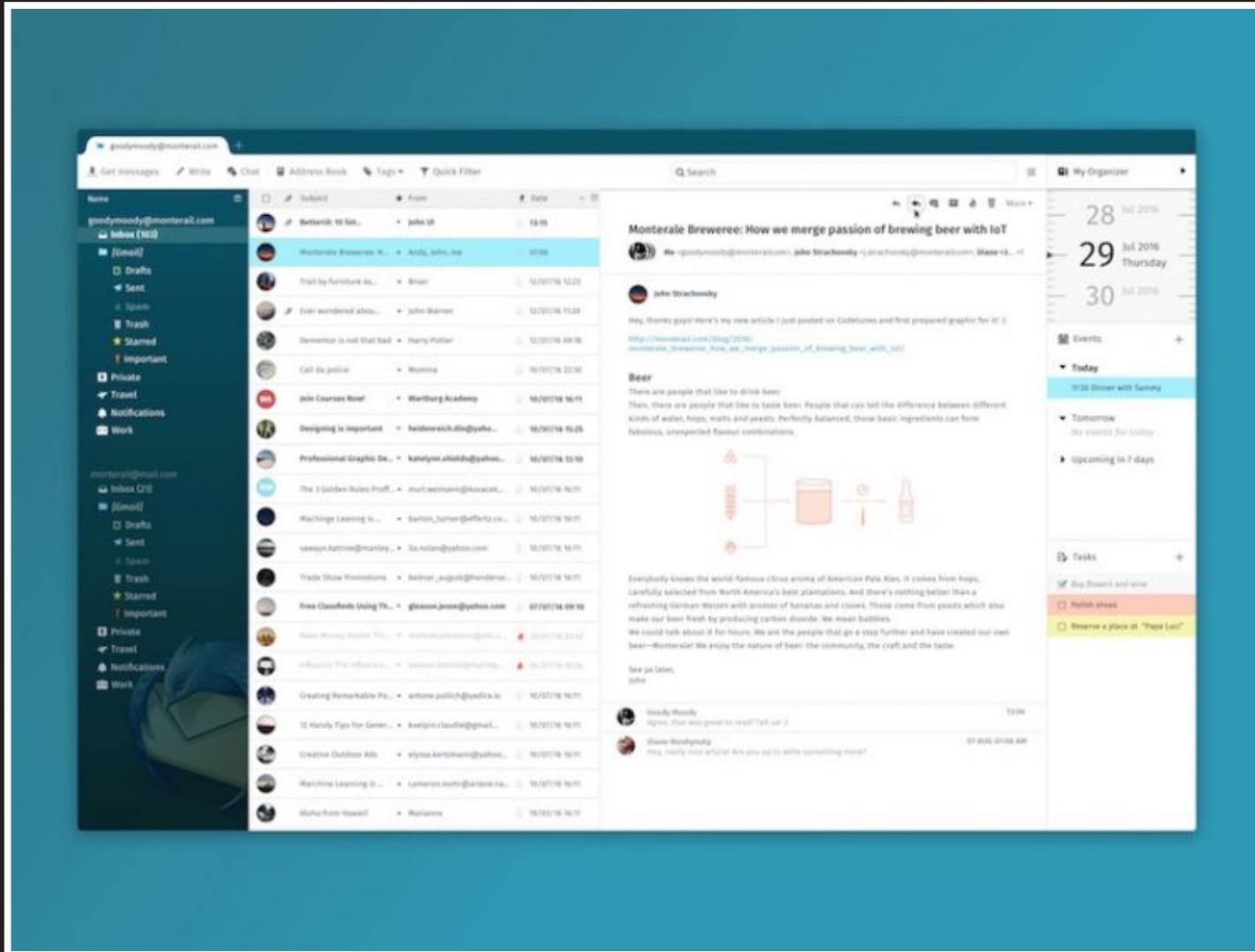
Was ist Linux?

- Linux ist der freie Kern vieler Betriebssysteme (Debian, Ubuntu, Android, Arch, ...)
- Wird in vielen Bereichen verwendet: Server, Desktops, IoT devices, Supercomputer, ...

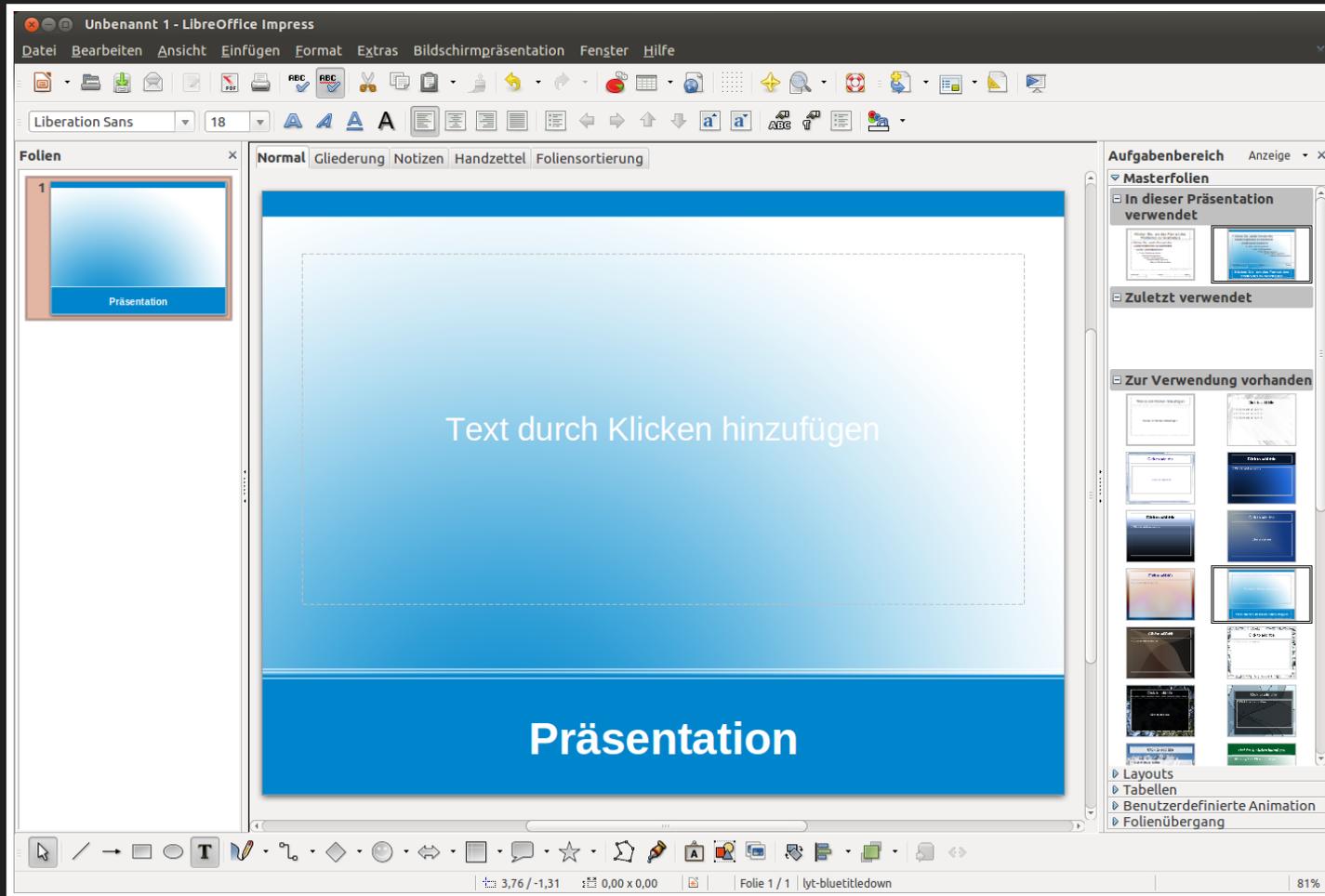
Warum nicht Windows?

- Nicht Open-Source
- Übermittlung von Telemetriedaten nicht abschaltbar
- Abhängigkeit von einem Großkonzern
- Braucht viel Speicherplatz + Windows Updates sind langsam
- Repositories!

E-Mails lesen: Thunderbird



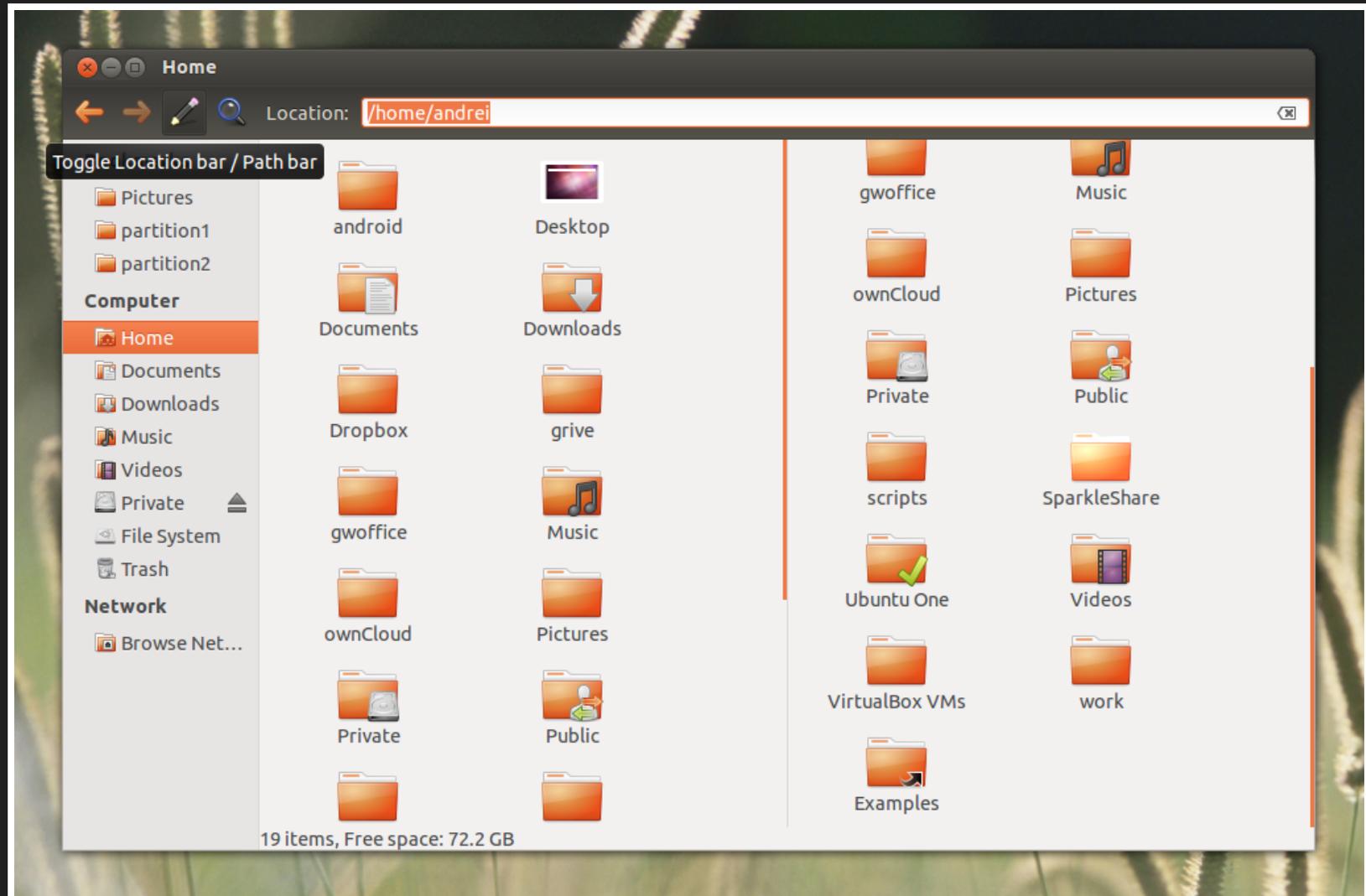
LibreOffice: Texte, Präsentationen, Excel, ...



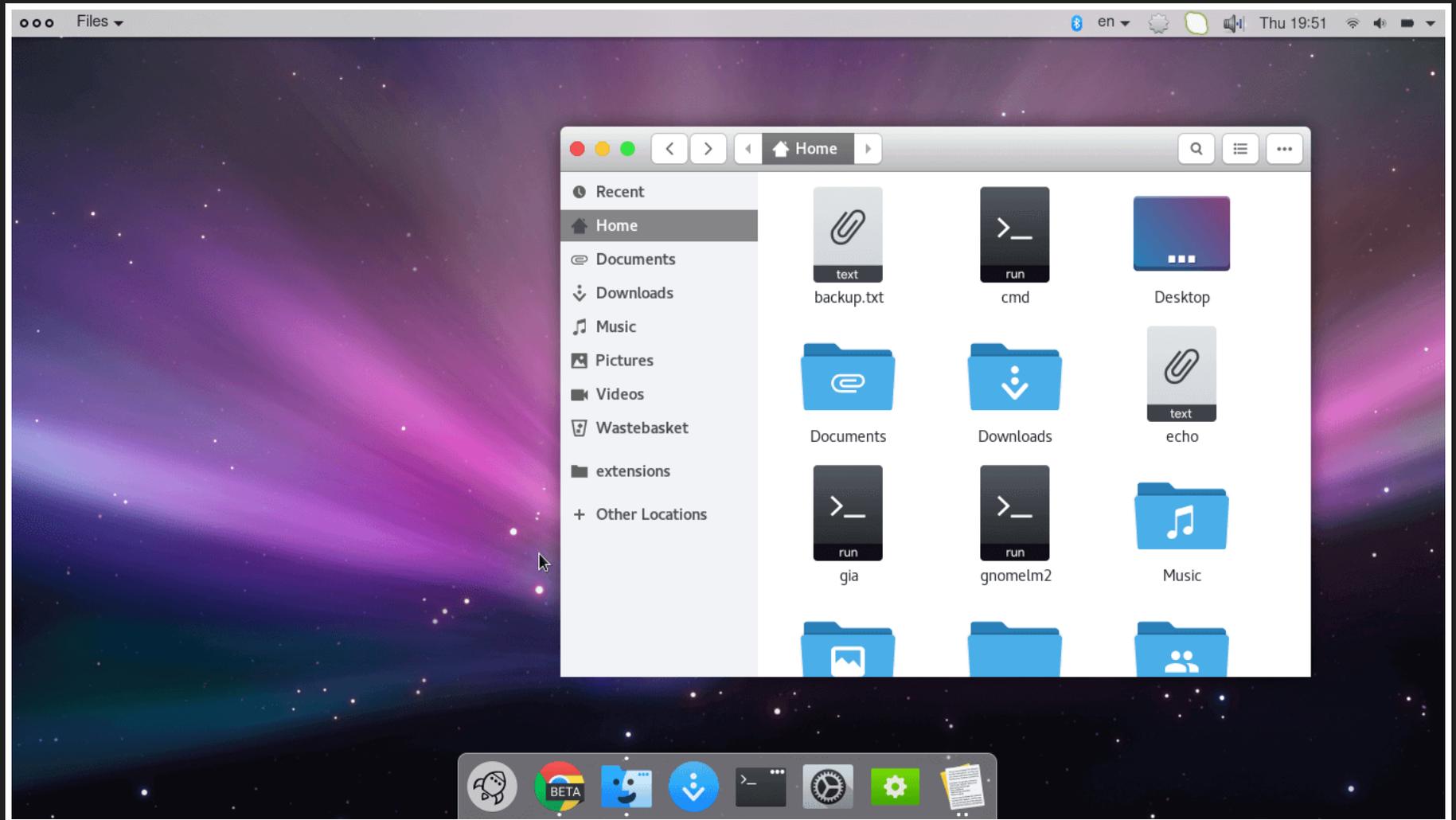
Dateimanager: Nautilus ... :D



Dateimanager: Nautilus



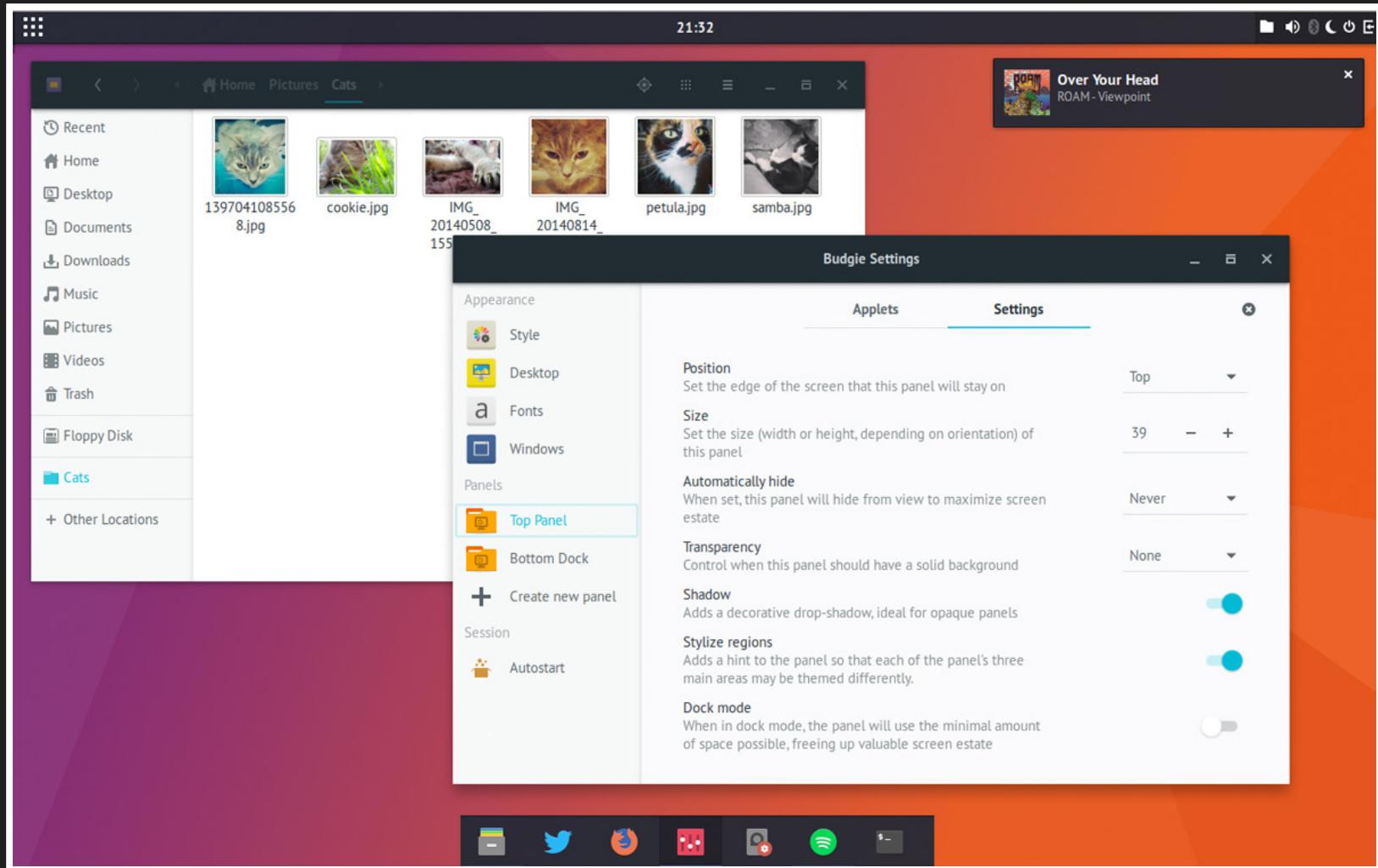
Impressionen (1/7)



Impressionen (2/7)

The screenshot displays a Linux desktop environment with a purple and blue starry background. At the top, the system tray shows the date and time as 'Sat May 5, 21:36:27' and a battery level of 100%. The desktop features a sidebar with icons for Home, a folder labeled 'F', and a file named 'Feem_Linux_4.2.6_bet...'. The main window is the 'Tweaks' application, specifically the 'Appearance' section. It includes a search bar and a list of categories on the left: Appearance, Desktop, Extensions, Fonts, Keyboard & Mouse, Power, Sound, Startup Applications, Top Bar, Windows, and Workspaces. The 'Appearance' section is expanded, showing settings for Animations (enabled), Themes (Applications: Vimix-Light-Laptop-Beryl, Cursor: MacOS Cursor Set, Icons: Paper-Vimix, Shell: Flat-Mac v0.2), Background (Image: squircle_5k2-3840x2400.jpg), Lock Screen (Image: desktop-locksreen.xml), and Adjustment (Zoom). To the right, a 'Resources' window is open, showing system performance metrics. It includes three graphs: 'CPU History' with a legend for CPU1 (18.4%), CPU2 (12.1%), CPU3 (11.2%), and CPU4 (15.8%); 'Memory and Swap History' showing Memory at 2.1 GiB (56.9% of 3.8 GiB) and Swap at 0 bytes (0.0% of 3.4 GiB); and 'Network History' showing Receiving at 0 bytes/s (Total Received: 714.4 KiB) and Sending at 0 bytes/s (Total Sent: 48.1 KiB).

Impressionen (3/7)



Impressionen (4/7)



The screenshot displays a music player interface with a playlist on the left and a large background image of a single yellow maple leaf resting on dark, wet, reflective stones. The playlist table is as follows:

Artist	Title	Time
FISHER	Stop It	2:44
Book Tilly, Idnto Elbay, Patrick	Paradise - Patrick Topping Remix	6:10
Dennis Cruz, Harvy Valente	Paradise - Dennis Cruz Remix	6:35
PAWSA	Anxious	6:38
Matt Sassart	Cops Mood	6:38
Matt Sassart	Phantom	6:10
Matt Sassart	Relax	6:25
Janie Jones, Digitarla	Planets, Spaceships - Original Mix	6:50
David Herrera	Volvorata	6:33
Victor Vera	Talised	6:10
Mink	Earth	5:23
Josh Butler	Got a Feeling (Pleasurekraft vs. B	6:40
Matt Sassart	Port Cool	6:16
Matt Sassart	Frank Det	6:40
dubspeake	Primary M293	7:40
Cogy, Carl Golden	Profound Pleasure (Feat. Carl Gold	3:15
Cogy, Carl Golden	Profound Pleasure (Feat. Carl Gold	7:33
Dosem	Projection - Original Mix	6:16
The Cube Guys	Psycho Killer - Original Mix	5:41
Dale Howard, Santi	Pulsar - Santi Remix	5:45
Paul Ritoh, Ron Costa	Pulse - Ron Costa Remix	6:30
Toni Alvarez, Miguel Do Reis,	Pump Up The Swag - M. Fukuda Remix	7:16
Matt Sassart	Saturday	6:05
Josh Taylor, Justin Jag, Janie	Pussy Pop - Janie Jones Remix	6:30
Ron, Skudge	7 - Skudge Amx	6:20
> Kindlmer	untz	1:20
Matt Sassart	Stony Door	6:59
ANNA	Redemption	7:27
Saxon	Rebound	6:50
Ruben Mandolini	Understand (Original Mix)	6:02
Miguel Bastida, Hatler	Roundness - Hatler Remix	7:55
Matador, Felix De Housecat, Ju	The Enemy - Julian Jaxx1 Remix	5:36
Matador, Fur Coat	Mount & Bones - Fur Coat Remix	6:21
Skoben	Sattibeat	7:06
Pleasurekraft	Satyr Song - Original Mix	7:40
Pleasurekraft	Satyr Song - Umek Remix	6:05
Matt Sassart	Shaman - Original Mix	6:33
Raffaella Rizzo	Total Block	5:40
Rhythm & Sound	Free For All - Soundstream Remix	5:47
Benton	Visitors - Original Mix	6:32
Popof	Seranitty	7:00
Kindlmer	Shadow & Construction - Original M	6:47
Harvey Kelly	Shake	7:11
Bos Roos	Midnight People	5:28
Sidney Charles	So Deep	6:48
Josh Butler	Snake Skin - Original	5:30
Josh Butler	Snake Skin	5:38
Leao & Jan, Matt Sassart	Snip Shot - Matt Sassart Remix	6:24
Ruben Mandolini	Modular Love	6:46
Darius Syssostian, Josh Butler	Solar Wind	6:06
OC & Verde	Solstice - Original Mix	9:32
Ant Brooks, Matt Sassart	Industrial	6:41
Kollektiv Turmstrasse	Sorry I Am Late - Extended	8:10
Kollektiv Turmstrasse, Unorth	Sorry I Am Late - Unorthodox Remix	8:03
Mike Rodgers, Carl Cox	Oh Baby - David Toth's Dub Tech M	7:32
Enrico Sangiuliano	Sparrows In My Glass	6:52
PAWSA	The Shapeshifter - Original Mix	5:45
Ben Renner	Stand Out - Original Mix	6:38
Teenage Mutants	Barbès - Original Mix	5:58
Ell Brown	Sundara - Original Mix	6:48
Josh Butler	Tropics	6:13
Pirupa, Carlo Lio	Sunday Morning - Carlo Lio Remix	6:47
Detlef, Ossay Jones	Swagon - Original Mix	6:10

At the bottom left, there is a vertical bar chart with approximately 15 bars of varying heights, representing a frequency or volume distribution.

Impressionen (5/7)

The screenshot displays the KDE Plasma desktop environment. The background is a scenic landscape with mountains and a lake. In the top right corner, there is a circular analog clock showing approximately 12:06. A terminal window in the upper center shows system statistics and a list of running processes. The left sidebar contains the application menu, with 'Офис' (Office) highlighted. The Dolphin file manager window is open, showing the 'Домашняя папка' (Home folder) with various subfolders like 'Видео', 'Документы', 'Загрузки', 'Изображения', 'Музыка', 'Рабочий стол', and 'Git'. The system tray at the bottom shows the time as 12:06 and the temperature as -8°C.

```
1 [|||||100.0%] Tasks: 127, 468 thr: 3 running
2 [|||||14.6%] Load average: 2.45 2.63 2.58
3 [|||||90.0%] Uptime: 11:46:37
4 [|||||27.9%]
Mem[.44G/3.75G]
Swp[|309M/4.66G]
```

PID	USER	PRI	NI	VRT	RES	SHR	%CPU	%MEM	TIME+	Command
17994	alex	20	0	260G	240M	93704	4.0	6.3	0:42.02	/usr/bin/plasmashell
15394	alex	20	0	3380M	200M	100M	3.3	5.2	2:40.78	/usr/bin/kwin_x11 --crashes
13989	alex	20	0	3223M	205M	61172	2.0	5.4	0:22.18	/usr/bin/clementine
1376	alex	20	0	899M	69500	53852	1.3	1.8	0:37.48	/usr/bin/yakuake
18871	alex	20	0	27452	4040	3188	1.3	0.1	0:05.27	htop

alex : htop

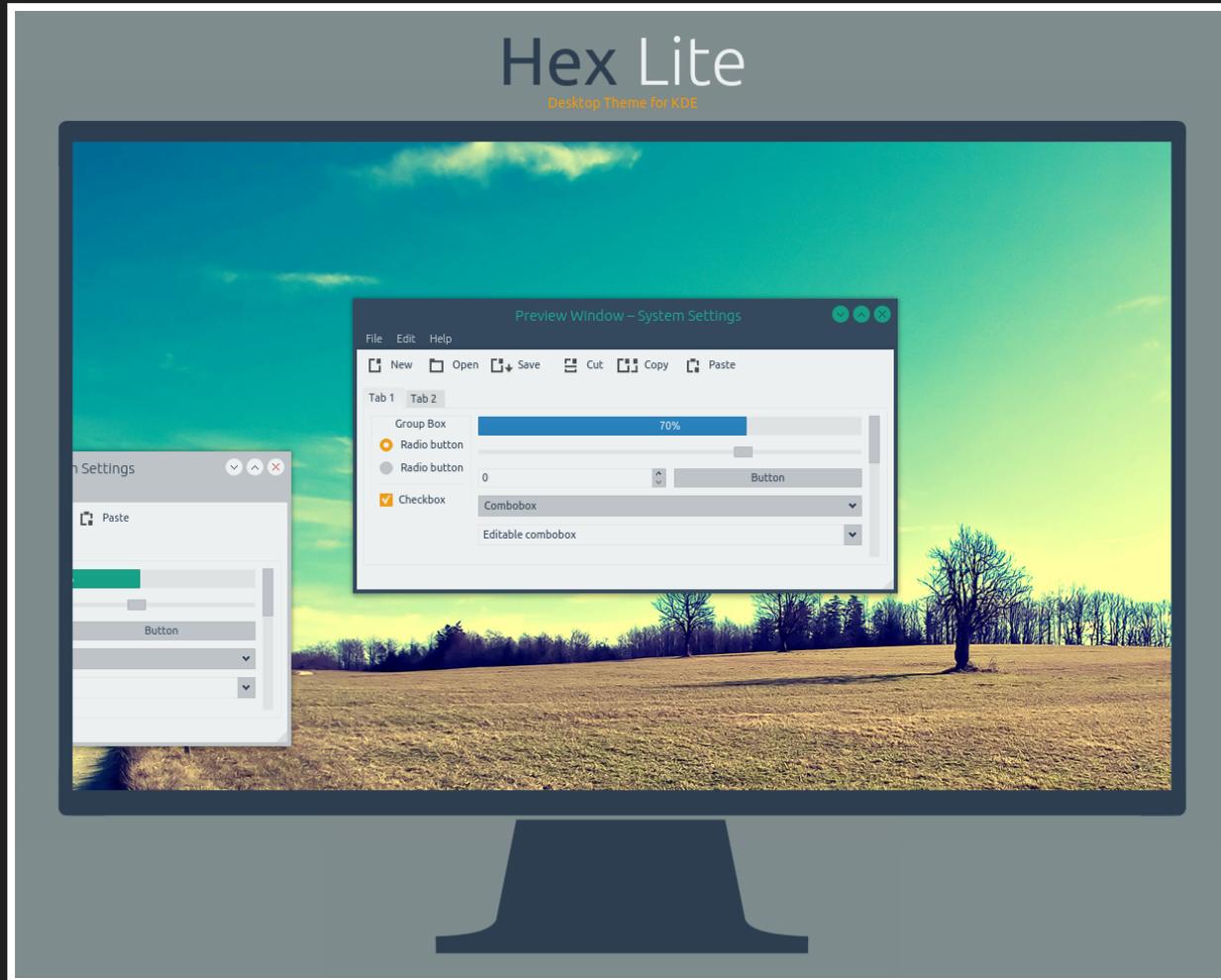
alex — Dolphin

Домашняя папка

- Видео
- Документы
- Загрузки
- Изображения
- Музыка
- Рабочий стол
- Git

7 папок | свободно 10,6 Гиб

Impressionen (6/7)



Impressionen (7/7)

The screenshot displays a Linux desktop environment with the following components:

- Browser Window:** DuckDuckGo search engine homepage with the logo and search bar.
- Wallpaper:** A wireframe cat face.
- Terminal Window:** Shows system information for Arch Linux x86_64 on an XPS 13 9370. The output includes OS, Host, Kernel, Uptime, Packages, Shell, Resolution, WM, Theme, Icons, Terminal, and Font details.
- Music Player Window:** Displays a playlist for 'Apocalyptica - Toreador II' with 18 tracks. The current track is '12 Apocalyptica - Toreador II (Reflections: Revised)'.

Distribution: Ubuntu

- weit verbreitet
- gutes deutsches Supportforum
- einfach zu installieren & zu bedienen
- keine aufwändige Wartung

Distribution: Ubuntu Studio

- für Grafiker, Musiker, Videobearbeiter, Vlogger, Künstler, ...

Distribution: elementary

(sieht aus wie: )

System Settings

🔍 Buscar opciones

Personal

- Brillo y bloqueo
- Escritorio
- Región e idioma
- Seguridad y privacidad
- Tweaks
- Valores predeterminados

Hardware

- Color
- Energía
- Impresoras
- Monitores
- Ratón y touchpad
- Sonido
- Tableta Wacom
- Teclado

Red e inalámbricos

- Bluetooth
- Online Accounts
- Red

Administración

- Acceso universal
- Acerca de
- Cuentas de usuario
- Fecha y hora



Distribution: Andere Distributionen

(für erfahrene Anwender)

- NixOS
- Arch
- Manjaro
- Debian
- Red Hat Enterprise
- Fedora
- Kali Linux

Welche Distro ist die richtige für mich?

<https://distrochooser.de/>

Probleme, die Linux lösen kann

- YouTube-Videos können direkt über das Terminal heruntergeladen werden
- Aktionen von “git” und “ssh” können zentral über das Terminal erfolgen
- Alle Programme werden über den Paketmanager verwaltet. Es muss nicht jedes Programm einzeln aktualisiert werden.
- Systemrettung via Live-USB-Stick
- Automatisierte Tasks

Grundlegende Befehle für das Terminal

- man (**man**ual)
- cd (**ch**ange **dir**ectory)
- mv (**m**ove)
- rm (**r**emove)
- cp (**c**opy)
- zip (**z**ipper)
- ssh (**s**ecure **s**hell)
- wget (**w**eb **g**et)
- cat (**c**on**c**atenate)
- nano
- apt-get
- git -> siehe weiterer Workshop

Live-Demo

Installparty: Ubuntu

Lizenz

- CC-BY-SA-4.0
- <https://creativecommons.org/licenses/by-sa/4.0/>