

# Betriebssysteme

Windows, macOS, Unix, Virtualisierung und Tools

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Dokumenten URL:

<http://docs.tx7.de/TT-BS3>

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Lizenz:

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Version:

7.2.1 vom 16.01.2025





Ein Betriebssystem (BS) verwaltet die Hardware eines Computers und teilt die Ressourcen zu. Bekannte Betriebssysteme für PCs und mobile Endgeräte sind (in chronologischer Reihenfolge):

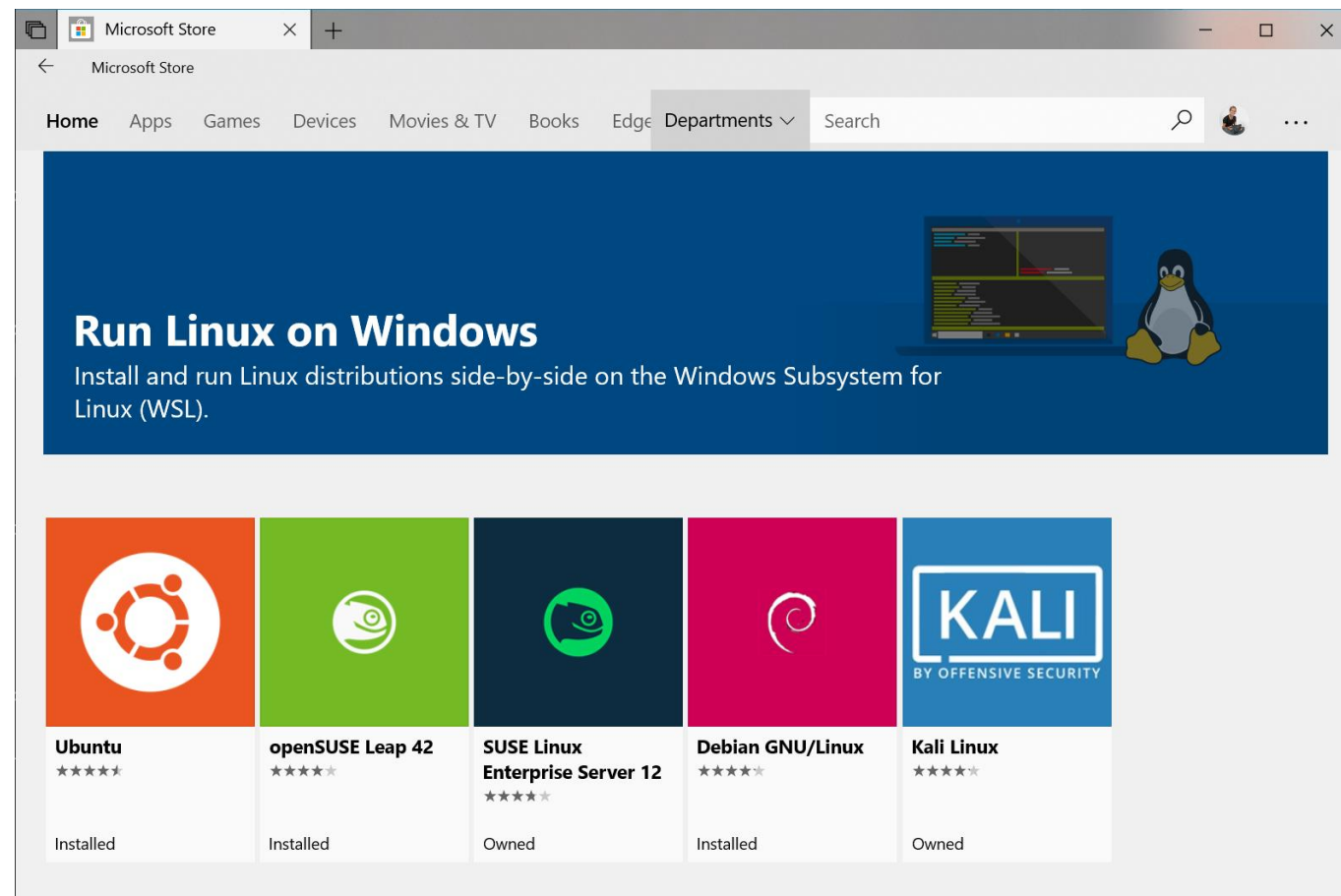
System	Jahr
UNIX	1971
DOS (Nachfolger von CP/M)	1974
Windows	1983
OS/2 Warp	1987
Linux	1991
MacOS	2001
iOS (vorher iPhone OS)	2007
Android	2008

System	2018	2023
Android	38,97 %	41,64 %
Windows	37,07 %	29,25 %
iOS	13,18 %	17,71 %
macOS	5,24 %	6,57 %
Linux	0,76 %	1,54 %
nicht identifizierte BS	2,72 %	1,93 %
andere BS	2,06 %	1,36 %



Das **Windows Subsystem for Linux**, kurz WSL, ist eine Erweiterung von Windows 10, um Linux innerhalb von Windows auszuführen.

WSL nutzt Virtualisierungstechniken der CPU.





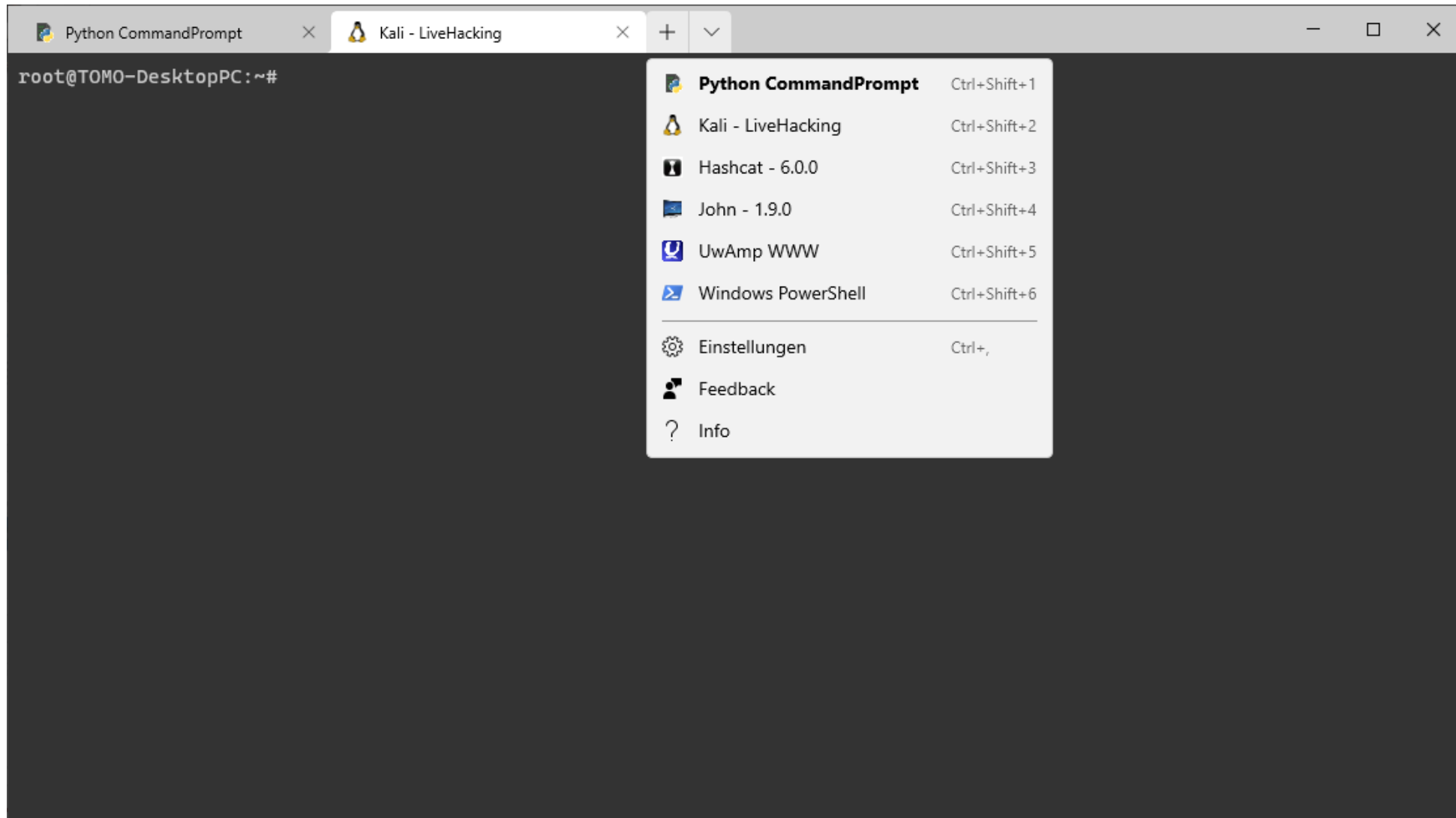
```
tomo@TOMO-DesktopPC: ~
Installing, this may take a few minutes...
Please create a default UNIX user account. The username does not need to match your Windows username.
For more information visit: https://aka.ms/wslusers
Enter new UNIX username: tomo
New password:
Retype new password:
passwd: password updated successfully
Installation successful!
(Message from Kali developers)

This is a minimal installation of Kali Linux, you likely
want to install supplementary tools. Learn how:
  https://www.kali.org/docs/troubleshooting/common-minimum-setup/

(Run "touch ~/.hushlogin" to hide this message)
(tomo@TOMO-DesktopPC)-[~]
$ _
```



# Windows Terminal





# Putty

Putty war einer der meistverwendeten SSH Clients unter Windows. Putty ist kostenlos.

```
tomo@TOMO-DesktopPC: ~  
login as: tomo  
tomo@172.24.92.77's password:  
Linux TOMO-DesktopPC 4.19.104-microsoft-standard #1 SMP Wed Feb 19 06:37:35 UTC  
2020 x86_64  
  
The programs included with the Kali GNU/Linux system are free software;  
the exact distribution terms for each program are described in the  
individual files in /usr/share/doc/*/copyright.  
  
Kali GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent  
permitted by applicable law.  
tomo@TOMO-DesktopPC:~$
```

**PuTTY Configuration**

Category:

- Session
- Logging
- Terminal
  - Keyboard
  - Bell
  - Features
- Window
  - Appearance
  - Behaviour
  - Translation
  - Selection
  - Colours
- Connection
  - Data
  - Proxy
  - Telnet
  - Rlogin
  - SSH
  - Serial

Basic options for your PuTTY session

Specify the destination you want to connect to

Host Name (or IP address) Port

Connection type:

☐ Raw ☐ Telnet ☐ Rlogin ☒ SSH ☐ Serial

Load, save or delete a stored session

Saved Sessions

Default Settings  
Kali Linux in VirtualBox  
Raspi Initial (FritzBox)  
Raspi Initial (Link Lokal)  
TOMO-NAS  
TOMO-PI-1-Bplus-01  
TOMO-PI-1-Bplus-02

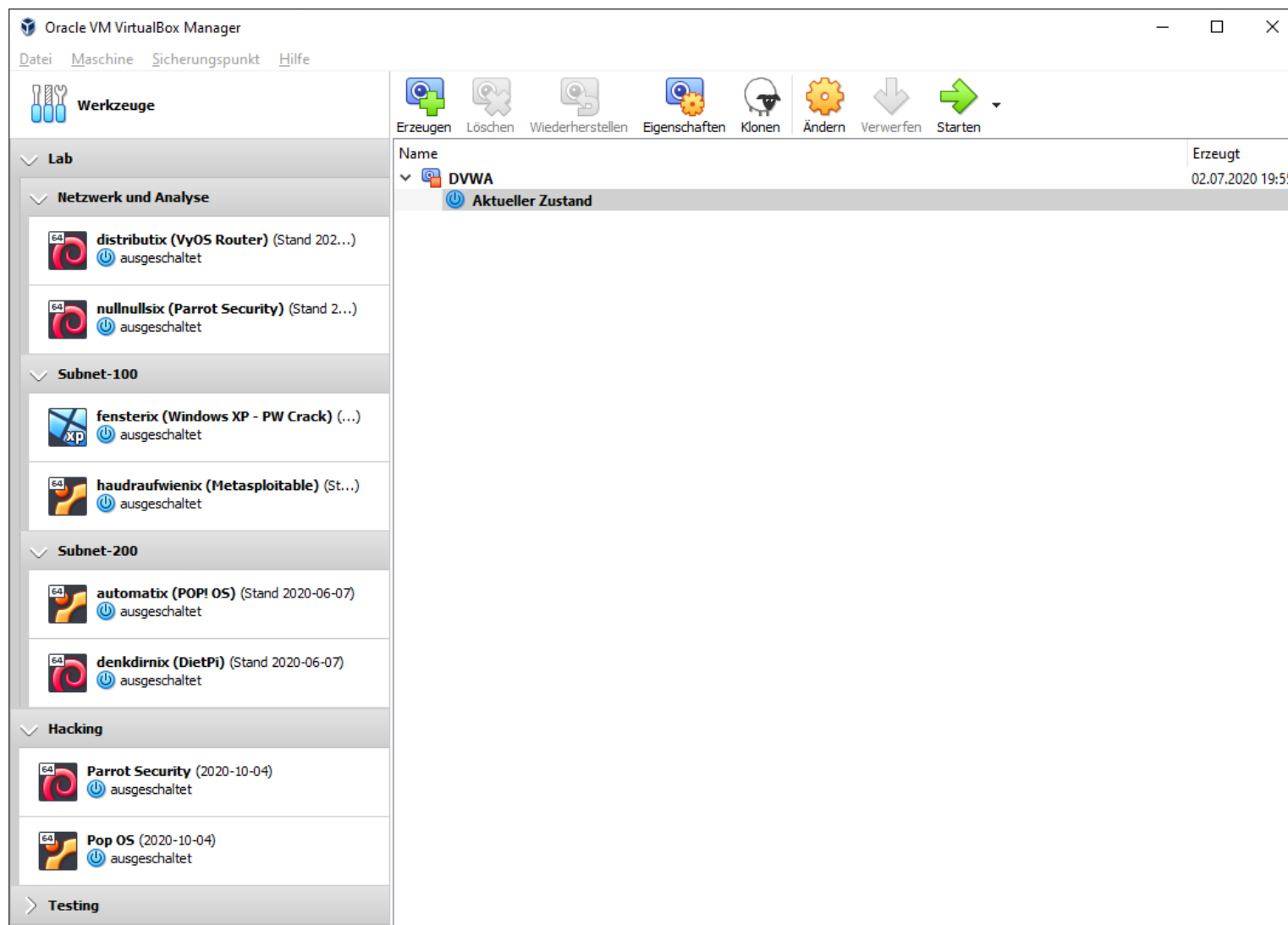
Close window on exit:

☐ Always ☐ Never ☒ Only on clean exit

About Help Open Cancel



# VirtualBox





PROXMOX Virtual Environment 6.0-4

Search

Documentation

Create VM

Create CT

root@pam

Server View

Datacenter (democluster)

pve6-demo1

ceph (pve6-demo1)

cephfs (pve6-demo1)

local (pve6-demo1)

local-lvm (pve6-demo1)

pve6-demo2

100 (Buster)

ceph (pve6-demo2)

cephfs (pve6-demo2)

local (pve6-demo2)

local-lvm (pve6-demo2)

pve6-demo3

101 (debianct)

ceph (pve6-demo3)

cephfs (pve6-demo3)

local (pve6-demo3)

local-lvm (pve6-demo3)

production

testlab

Datacenter

Search

Summary

Cluster

Ceph

Options

Storage

Backup

Replication

Permissions

Users

Groups

Pools

Roles

Authentication

HA

Firewall

Support

Health

Status

Nodes

Ceph

Cluster: democluster, Quorate: Yes

HEALTH\_OK

Resources

CPU

Memory

Storage

1%

21%

11%

of 18 CPU(s)

4.92 GiB of 23.36 GiB

17.66 GiB of 153.91 GiB

Subscriptions

Community

Your subscription status is valid.

Guests

Virtual Machines

LXC Container

Running

Stopped

1

0

Running

Stopped

1

0

Nodes

Name	ID	Online	Support	Server Address	CPU usage	Memory usage	Uptime
pve6-demo1	1	✓	Community	192.168.6.80	1%	18%	00:06:36
pve6-demo2	2	✓	Community	192.168.6.81	1%	26%	00:06:35
pve6-demo3	3	✓	Community	192.168.6.82	1%	19%	00:06:30

Tasks

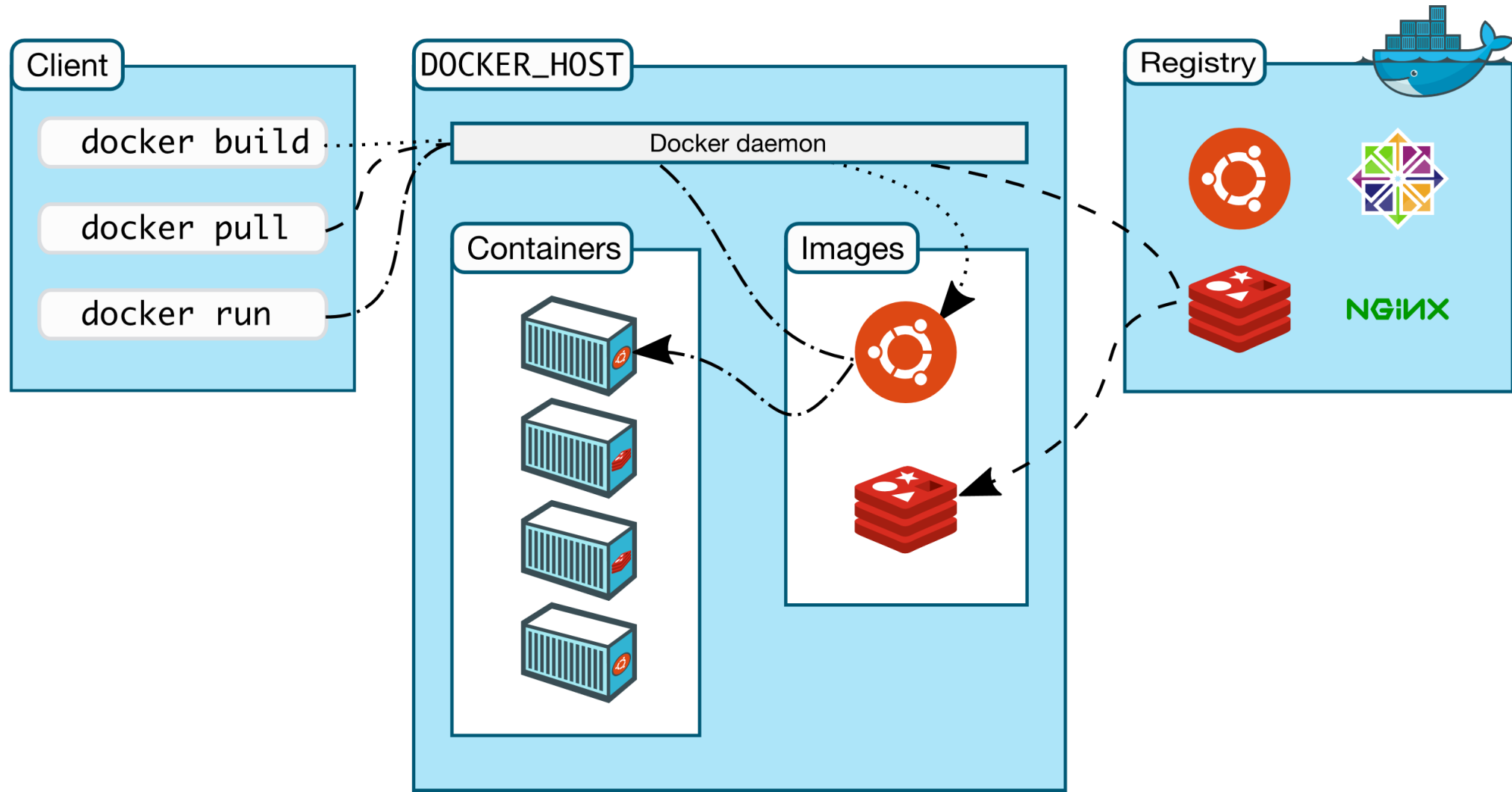
Cluster log

Start Time ↓	End Time	Node	User name	Description	Status
Jul 16 11:31:59	Jul 16 11:32:02	pve6-demo1	root@pam	Shell	OK
Jul 16 11:31:18	Jul 16 11:31:19	pve6-demo2	root@pam	VM 100 - Start	OK
Jul 16 11:29:15	Jul 16 11:30:00	pve6-demo3	root@pam	CT 101 - Start	OK
Jul 16 11:27:21	Jul 16 11:27:23	pve6-demo3	root@pam	Start all VMs and Containers	OK
Jul 16 11:27:15	Jul 16 11:27:17	pve6-demo2	root@pam	Start all VMs and Containers	OK
Jul 16 11:27:12	Jul 16 11:27:16	pve6-demo1	root@pam	Start all VMs and Containers	OK





# Docker





portainer.io

Home

KASM

Dashboard

App Templates

Stacks

Containers

Images

Networks

Volumes

Events

Host

SETTINGS

Users

Environments

Registries

Authentication logs

Settings

A new version is available

portainer.io 2.11.0

## Container list

tomo  
[my account](#) [log out](#)

Containers Columns Settings

Start Stop Kill Restart Pause Resume Remove Add container

Search...

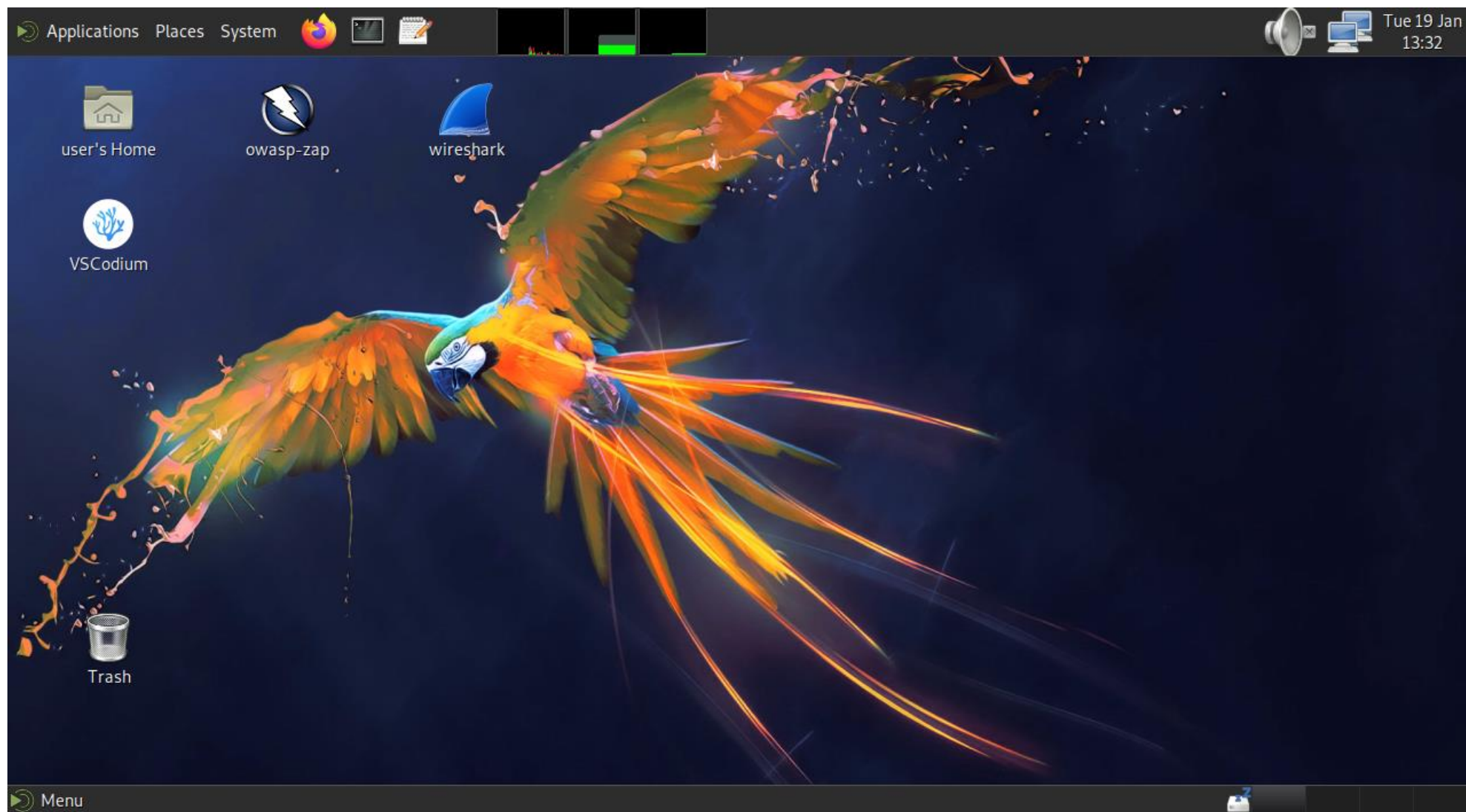
<input type="checkbox"/>	Name	State Filter	Quick actions	Stack	Image	Created	IP Address	Published Ports	Ownership
<input type="checkbox"/>	portainer	running		-	portainer/portainer-ce:2.11.0	2021-12-10 21:31:45	172.17.0.3	8000:8000  9000:9000  9443:9443	administrators
<input type="checkbox"/>	portainer_agent	running		-	portainer/agent	2021-12-08 10:15:12	172.17.0.2	9001:9001	administrators

Items per page 10 1 2



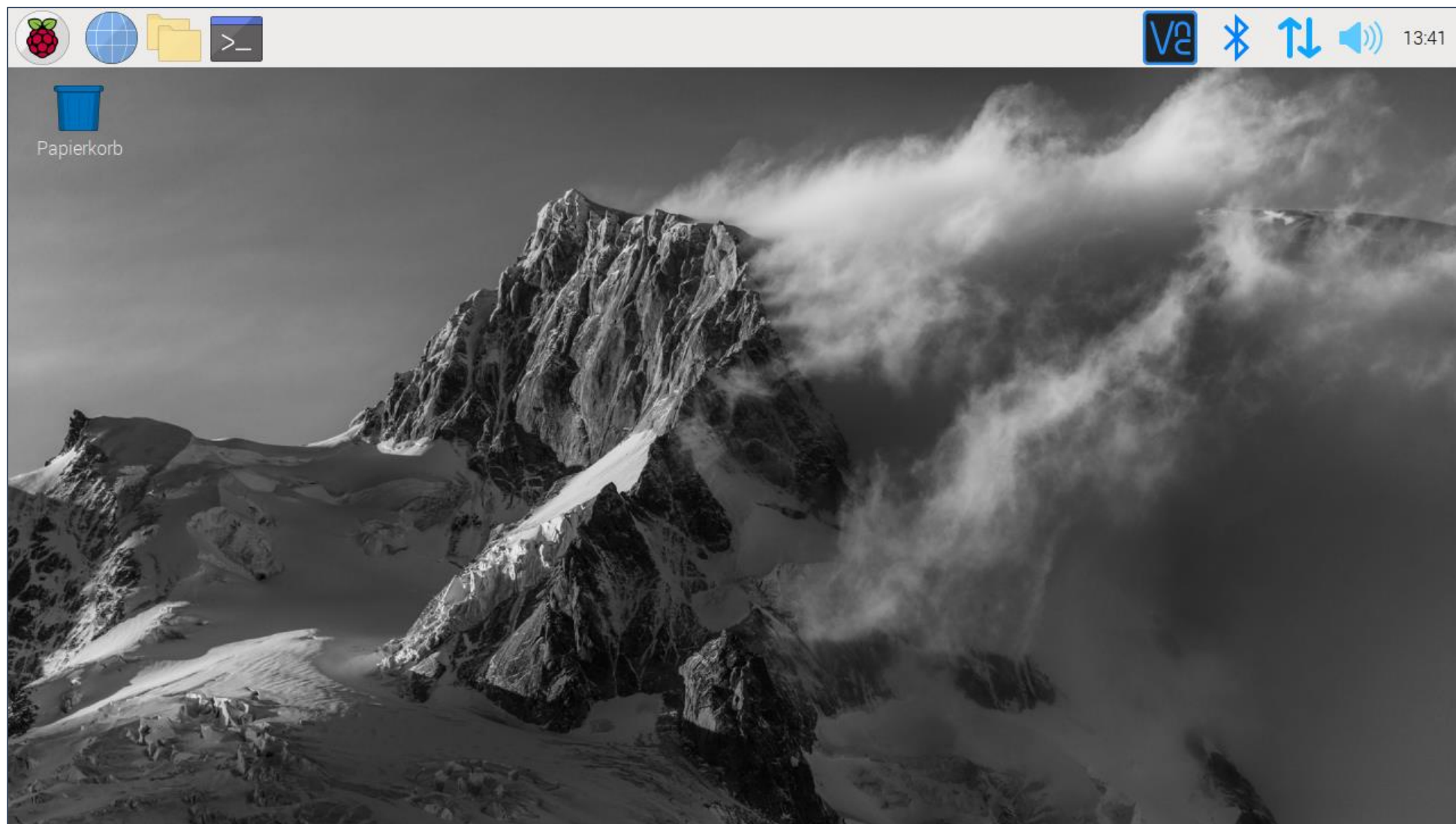


# Parrot Security





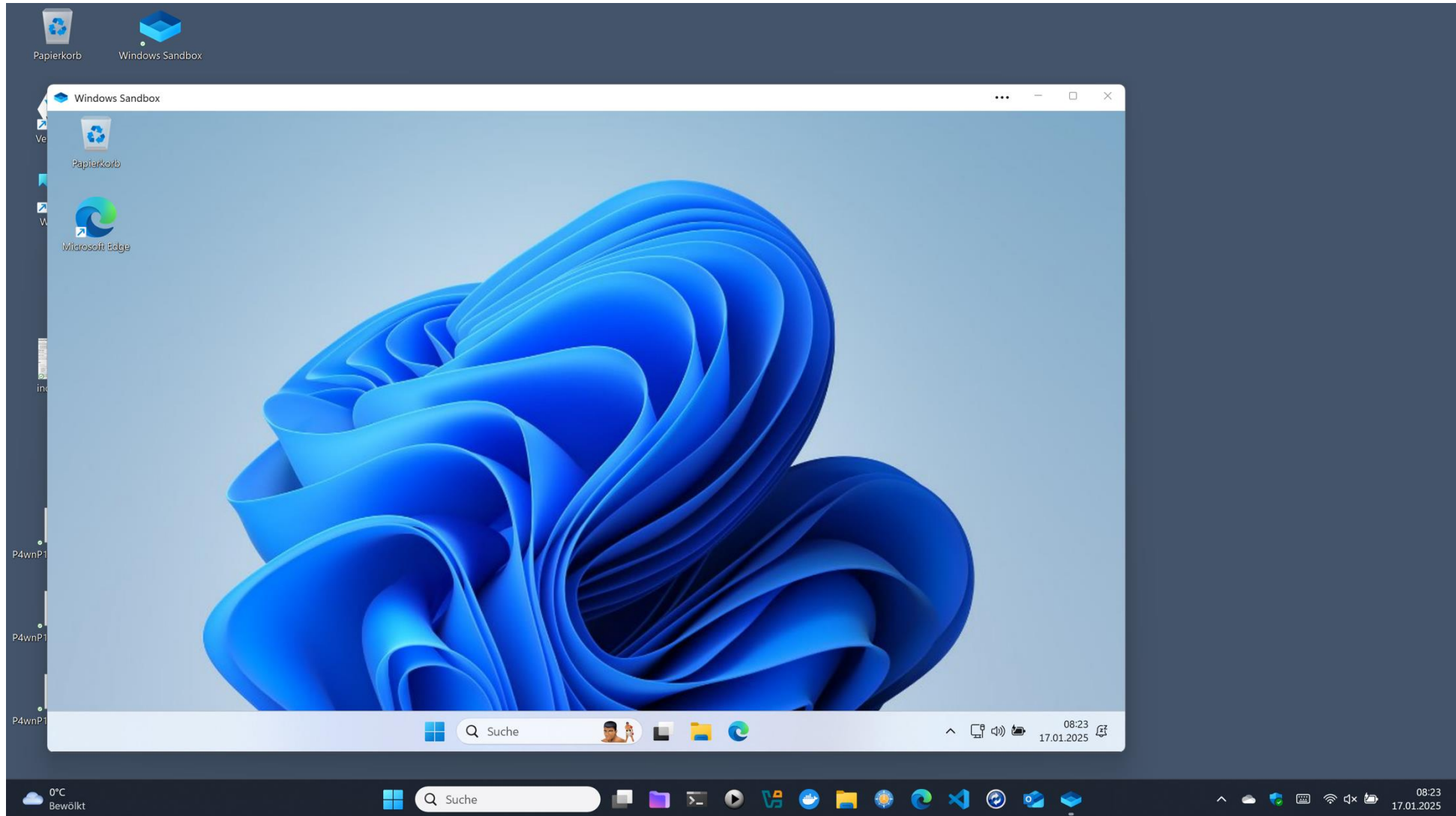
# Raspberry Pi OS





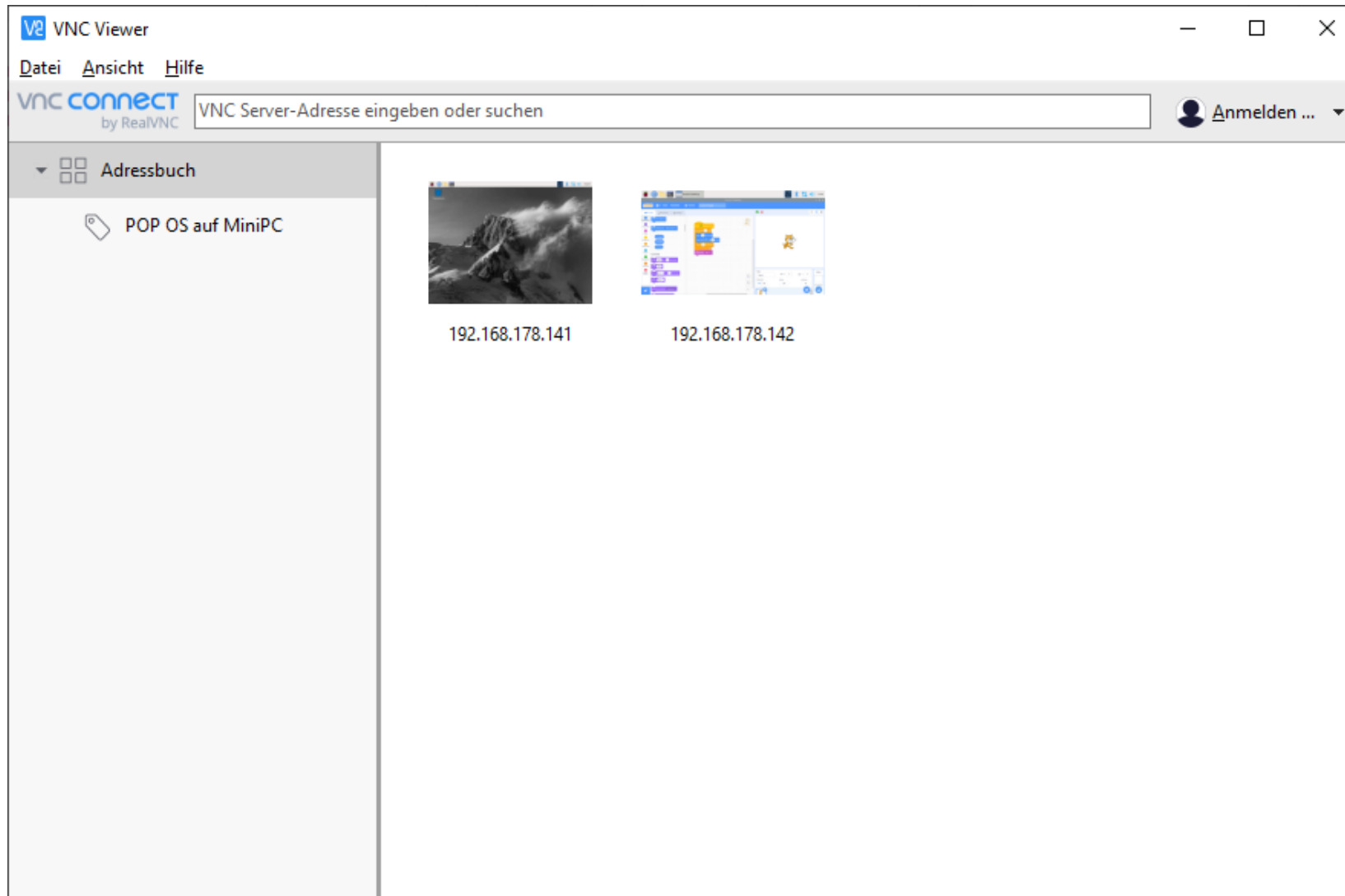


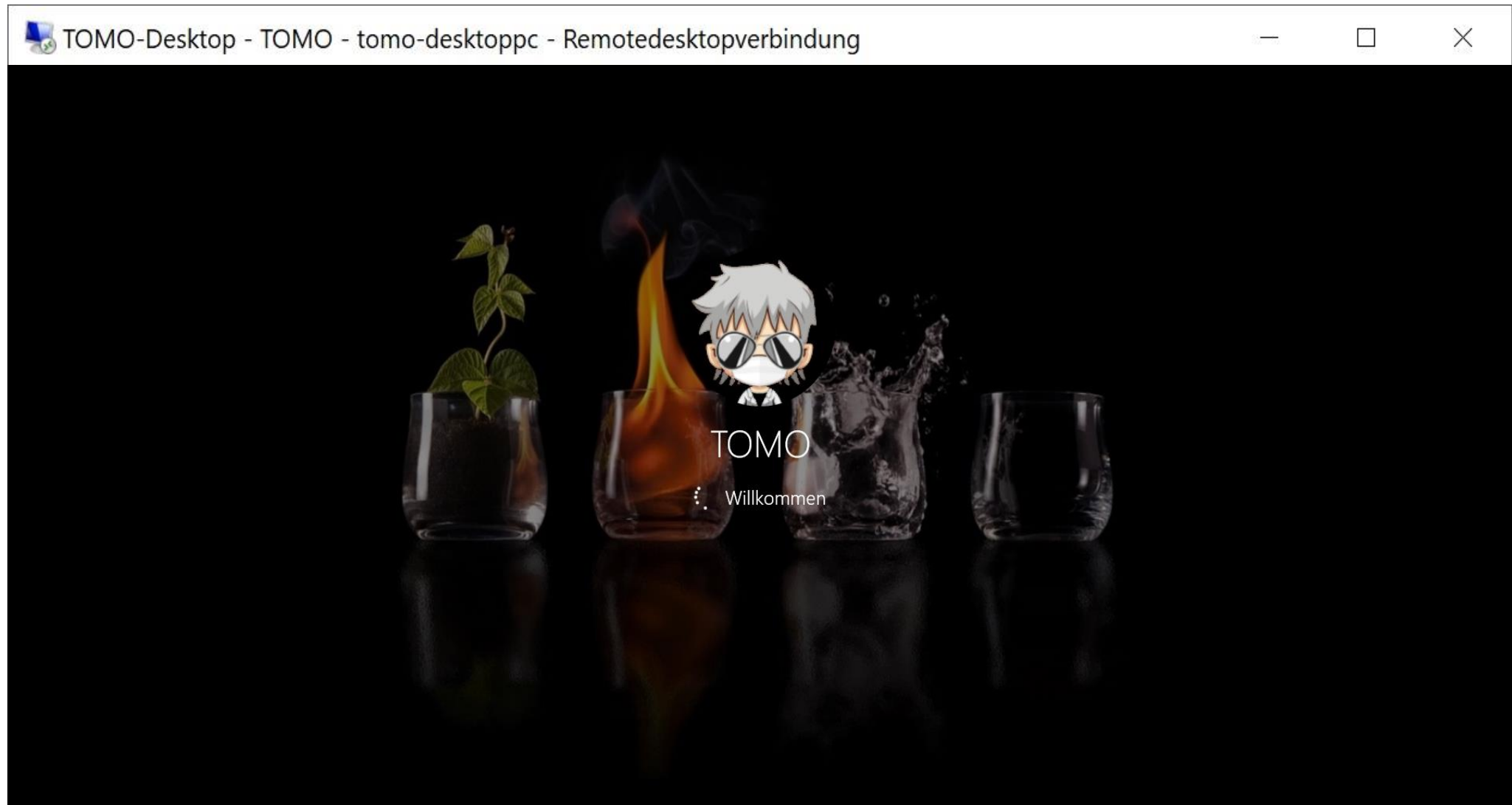
# Windows Sandbox





# VNC Viewer









# NirSoft und SysInternals im NirLauncher

NirLauncher - NirSoft Utilities

File Edit View Options Launcher Packages Help

Password Recovery Utilities

Network Monitoring Tools

Web Browser Tools

Video/Audio Related Utilities

Internet Related Utilities

Command-Line Utilities

Desktop Utilities

Outlook/Office Utilities

Programmer Tools

Disk Utilities

System Utilities

Other Utilities

All Utilities

Name	Description	Version	Updated On	Web Page URL	EXE Filename	EXE Modifie...	EXE Created Time	GUI/C...	Help F...	In Favorites
*ProduKey*	Displays the CD-Keys of...	1.97	17.04.2021 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	17.04.2021 1...	17.04.2021 11:48:42	GUI A...	C:\Use...	No
ActiveXHelper	view essential informati...	1.12	21.12.2007 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	21.12.2007 1...	21.12.2007 16:22:40	GUI A...	C:\Use...	No
AdvancedRun	Run a program with diff...	1.51	11.04.2022 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	11.04.2022 1...	11.04.2022 11:00:26	GUI A...	C:\Use...	No
AllThreadsView	Displays a list of all run...	1.00	23.03.2018 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	23.03.2018 2...	23.03.2018 23:24:36	GUI A...	C:\Use...	No
AppCompatibilityView	List of all programs that...	1.07	17.02.2022 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	17.02.2022 1...	17.02.2022 14:05:36	GUI A...	C:\Use...	No
AppCrashView	Displays the details of a...	1.35	10.11.2018 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	10.11.2018 0...	10.11.2018 08:42:42	GUI A...	C:\Use...	No
AppResourcesUsageView	View application resour...	1.06	06.11.2024 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	06.11.2024 1...	06.11.2024 15:31:40	GUI A...	C:\Use...	No
BatteryHistoryView	Displays battery history ...	1.06	20.12.2024 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	20.12.2024 1...	20.12.2024 15:36:36	GUI A...	C:\Use...	No
BatteryInfoView	Displays battery inform...	1.26	03.12.2024 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	03.12.2024 1...	03.12.2024 11:34:56	GUI A...	C:\Use...	No
BlueScreenView	Show information abou...	1.55	29.01.2015 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	29.01.2015 0...	29.01.2015 09:11:02	GUI A...	C:\Use...	No
BluetoothLogView	Creates a log of Blueto...	1.12	20.10.2016 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	20.10.2016 1...	20.10.2016 19:45:44	GUI A...	C:\Use...	No
BluetoothView	Monitors the activity of ...	1.70	30.09.2024 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	30.09.2024 1...	30.09.2024 15:56:32	GUI A...	C:\Use...	No
BulkFileChanger	Change date/time/attri...	1.73	19.04.2024 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	19.04.2024 1...	19.04.2024 13:45:10	GUI A...	C:\Use...	No
ControlMyMonitor	View and modify the se...	1.38	01.04.2024 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	01.04.2024 1...	01.04.2024 13:29:42	GUI A...	C:\Use...	No
CurrProcess	Displays the list of all pr...	1.13	22.05.2008 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	22.05.2008 0...	22.05.2008 07:45:40	GUI A...	C:\Use...	No
DevManView	Alternative to the stand...	1.80	06.09.2023 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	06.09.2023 1...	06.09.2023 11:31:38	GUI A...	C:\Use...	No
DriverView	Displays the list of all d...	1.51	05.08.2024 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	05.08.2024 1...	05.08.2024 10:03:42	GUI A...	C:\Use...	No
EventLogChannelsView	View,Disable,Enable Eve...	1.38	28.09.2023 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	28.09.2023 1...	28.09.2023 12:38:48	GUI A...	C:\Use...	No
EventLogSourcesView	Displays the list of all e...	1.00	09.08.2013 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	09.08.2013 1...	09.08.2013 10:19:04	GUI A...	C:\Use...	No
ExecutedProgramsList	Displays programs and ...	1.11	18.03.2016 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	18.03.2016 1...	18.03.2016 11:11:04	GUI A...	C:\Use...	No
FirmwareTablesView	Displays a list of firmwa...	1.02	06.08.2022 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	06.08.2022 0...	06.08.2022 09:44:20	GUI A...	C:\Use...	No
FolderChangesView	Monitor folder/drive ch...	2.37	28.08.2024 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	28.08.2024 1...	28.08.2024 16:04:20	GUI A...	C:\Use...	No
FolderTimeUpdate	Updates the 'Modified ...	1.72	22.08.2023 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	22.08.2023 1...	22.08.2023 19:30:12	GUI A...	C:\Use...	No
FullEventLogView	Event log viewer for Wi...	1.80	22.09.2023 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	22.09.2023 1...	22.09.2023 12:43:22	GUI A...	C:\Use...	No
HandleCountersView	Shows handle counter f...	1.19	15.08.2024 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	15.08.2024 1...	15.08.2024 15:05:12	GUI A...	C:\Use...	No
InstalledAppView	View installed Windows...	1.09	04.09.2024 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	04.09.2024 1...	04.09.2024 11:21:58	GUI A...	C:\Use...	No
InstalledDriversList	Lists all device drivers t...	1.06	21.09.2024 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	21.09.2024 1...	21.09.2024 16:20:34	GUI A...	C:\Use...	No
InstalledPackagesView	Displays installed MSI p...	1.10	16.04.2024 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	16.04.2024 1...	16.04.2024 15:59:46	GUI A...	C:\Use...	No
JumpListsView	Displays the informatio...	1.16	25.03.2018 ...	<a href="https://www.nirsoft.net/">https://www.nirsoft.net/...</a>	C:\Users\LiveHacking\One...	25.03.2018 2...	25.03.2018 22:45:50	GUI A...	C:\Use...	No

Run

Advanced Run

Web Page

Help File

Web Search

Package

Package

85 Utilities, 1 Selected

NirSoft Freeware. <https://www.nirsoft.net>



# NirSoft und SysInternals im NirLauncher

NirLauncher - SysInternals Suite -[2024.02.13]-

File Edit View Options Launcher Packages Help

**File and Disk Utilities** **Networking Utilities** **Process Utilities** **Security Utilities** **System Information Utilities** **Miscellaneous Utilities**

**All Utilities**

Name #	Description	Version	Updated On	Web Page URL	EXE Filename	EXE Modifie...	EXE Created Time	GUI/C...	Help F...	In Favorites
Autoruns	Shows what programs a...	14.11	06.02.2024 ...	<a href="https://docs.microsoft.c...">https://docs.microsoft.c...</a>	C:\Users\LiveHacking\One...	06.02.2024 1...	17.01.2025 15:28:47	GUI A...	C:\Use...	No
Autoruns Command-line	Shows what programs a...	14.11	06.02.2024 ...	<a href="https://docs.microsoft.c...">https://docs.microsoft.c...</a>	C:\Users\LiveHacking\One...	06.02.2024 1...	17.01.2025 15:28:47	Consol...		No
ClockRes	Views resolution of the ...	2.1	22.06.2020 ...	<a href="https://docs.microsoft.c...">https://docs.microsoft.c...</a>	C:\Users\LiveHacking\One...	22.06.2020 2...	17.01.2025 15:28:47	Consol...		No
Coreinfo	Shows CPU caps and m...	3.6	29.09.2022 ...	<a href="https://docs.microsoft.c...">https://docs.microsoft.c...</a>	C:\Users\LiveHacking\One...	29.09.2022 2...	17.01.2025 15:28:47	Consol...		No
LiveKd	Uses Microsoft kernel d...	5.63	27.04.2020 ...	<a href="https://docs.microsoft.c...">https://docs.microsoft.c...</a>	C:\Users\LiveHacking\One...	27.04.2020 1...	17.01.2025 15:28:47	Consol...		No
LoadOrder	Shows order in which d...	1.02	12.10.2021 ...	<a href="https://docs.microsoft.c...">https://docs.microsoft.c...</a>	C:\Users\LiveHacking\One...	12.10.2021 2...	17.01.2025 15:28:47	GUI A...		No
LoadOrder Command-line	Shows order in which d...	1.02	12.10.2021 ...	<a href="https://docs.microsoft.c...">https://docs.microsoft.c...</a>	C:\Users\LiveHacking\One...	12.10.2021 2...	17.01.2025 15:28:47	Consol...		No
PipeList	Displays the named pip...	1.02	30.04.2020 ...	<a href="https://docs.microsoft.c...">https://docs.microsoft.c...</a>	C:\Users\LiveHacking\One...	30.04.2020 1...	17.01.2025 15:28:47	Consol...		No
PsInfo	Obtains information ab...	1.79	30.03.2023 ...	<a href="https://docs.microsoft.c...">https://docs.microsoft.c...</a>	C:\Users\LiveHacking\One...	30.03.2023 1...	17.01.2025 15:28:48	Consol...		No
RAMMap	Advanced physical me...	1.61	11.05.2022 ...	<a href="https://docs.microsoft.c...">https://docs.microsoft.c...</a>	C:\Users\LiveHacking\One...	11.05.2022 1...	17.01.2025 15:28:48	GUI A...		No
VMMMap	Process virtual and phys...	3.4	18.10.2023 ...	<a href="https://docs.microsoft.c...">https://docs.microsoft.c...</a>	C:\Users\LiveHacking\One...	18.10.2023 1...	17.01.2025 15:28:48	GUI A...	C:\Use...	No
WinObj	Object Manager names...	3.14	27.01.2022 ...	<a href="https://docs.microsoft.c...">https://docs.microsoft.c...</a>	C:\Users\LiveHacking\One...	27.01.2022 2...	17.01.2025 15:28:48	GUI A...		No

Run Advanced Run Web Page Help File Web Search Package Package

12 Utilities, 1 Selected NirSoft Freeware. <https://www.nirsoft.net>

**Anmerkungen oder Fragen?**