

# Ventoy Multiboot-Stick

PC-Treff-BB Aidlingen

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# Agenda

- Motivation
- Was ist Ventoy?
- Installation
- Optionen
- Plugins
  - Persistenz
- Der eigentliche Bootstick

# Motivation

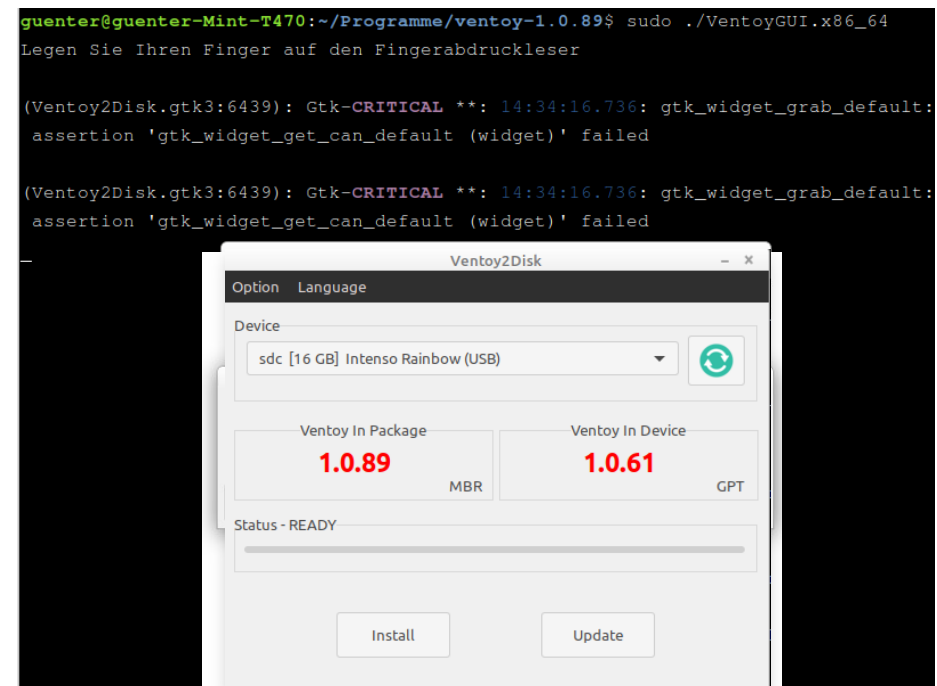
- Das Thema wurde in c't 24/2021 behandelt.
  - Erschöpfende Linksammlung: [ct.de/y1ua](https://ct.de/y1ua)
- Ich hatte vorher das Tool Easy2Boot in Gebrauch (auch schon im PC-Treff behandelt).
  - Nachteile: UEFI, Secure Boot, Reorg des Filesystems erforderlich, aber nur unter Windows möglich
  - Das Tool wurde wohl inzwischen auch weiterentwickelt, wird aber hier nicht weiter betrachtet.

# Was ist Ventoy?

- Lassen wir den/die Urheber sprechen (übersetzt):
- Ventoy ist ein Open Source Tool zur Erzeugung bootfähiger USB Datenträger für ISO/WIM/IMG/VHD(x)/EFI Dateien.
- Ventoy erspart das wiederholte Formatieren für jedes neue zu bootende System. Einmal erstellt kopiert man nur noch die ISO/WIM/IMG/VHD(x)/EFI Dateien auf das USB-Gerät und bootet sie direkt von da.
- Hat man mehrere davon erzeugt Ventoy ein Boot Menü.
- Stick kann auch Boot von lokal gespeichertem Image starten (**F2 - Ventoy Browser**).
- x86 Legacy BIOS, IA32 UEFI, x86\_64 UEFI, ARM64 UEFI und MIPS64EL UEFI in gleicher Weise unterstützt.
- Viele Betriebssysteme unterstützt (Windows/WinPE/Linux/ChromeOS/Unix/VMware/Xen...)
- 1000+ Image Files getestet ([Liste](#)), 90%+ Distros in distrowatch.com unterstützt ([Details](#)),

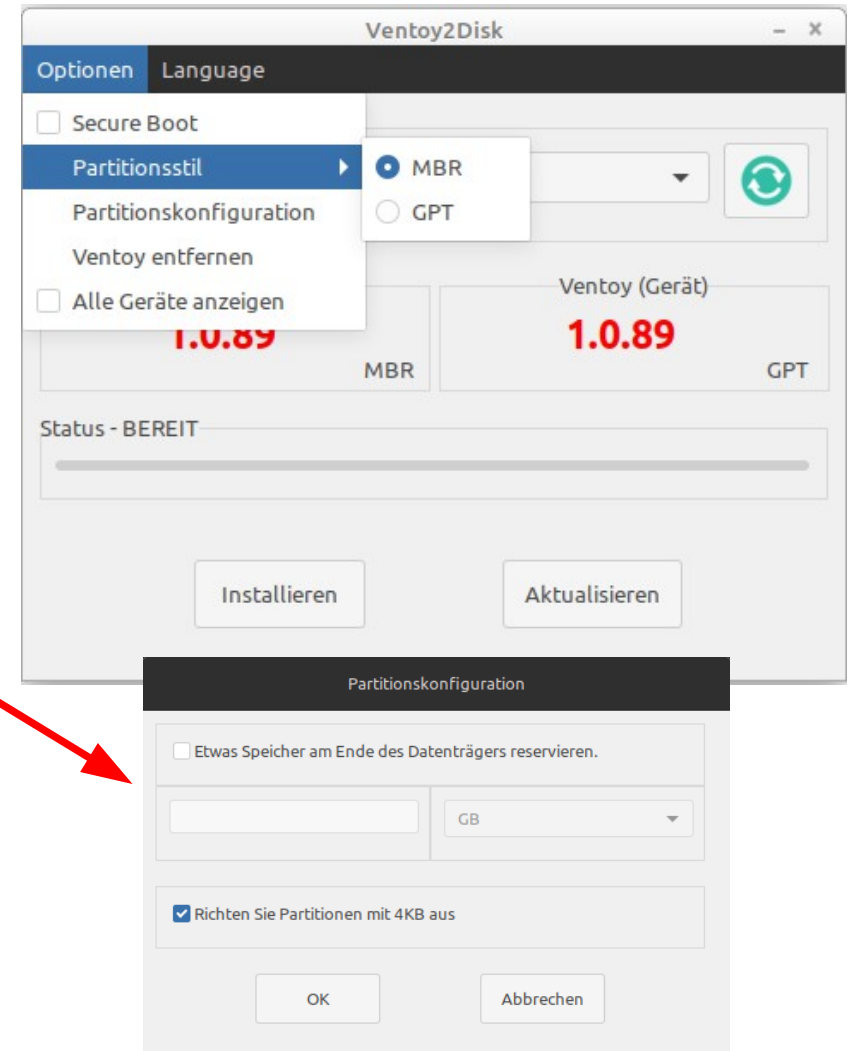
# Installation

- Download
  - Es gibt 3 Varianten: zip für Windows, tar.gz für Linux, iso als Live CD
  - Download erbeten von Github (Resourcegründe):  
<https://github.com/ventoy/Ventoy/releases>
- Keine Installation erforderlich
- Starten mit root-Rechten
- Stickerkennung Button
- Install/Update
- Stick hat 2 Partitions
  - Ventoy, VTOYEFI



# Optionen/Stickaufbau

- Sprache – nicht perfekt
- Secure Boot Unterstützung
- MBR vs. GPT
- Partitionskonfiguration
- Install/Update
- Bei Schwierigkeiten:
  - Alle Geräte anzeigen



▼ Ventoy	1 Objekt
▼ Linux	2 Objekte
kali-linux-2021.1-installer-amd64.iso	4,3 GB
linuxmint-20.2-cinnamon-64bit.iso	2,2 GB
▼ VTOYEFI	4 Objekte
▶ EFI	1 Objekt
▶ grub	18 Objekte
▼ tool	3 Objekte
mount.exfat-fuse_aarch64	16,4 kB
mount.exfat-fuse_i386	16,4 kB
mount.exfat-fuse_x86_64	16,4 kB
▶ ventoy	30 Objekte

- Stickaufbau:
  - Images nach Ventoy, Struktur egal)
  - VTOYEFI in Ruhe lassen

# Plugins – Ventoy Plugson

The screenshot shows the Ventoy Plugson web interface. The left sidebar lists various plugins, with 'Device Information' selected. The main content area displays device information in two tables:

Device Hardware Information	
Device Name	Intenso Rainbow [/dev/sdc]
Device Capacity	16GB
File System	exFAT

Device Ventoy Information	
Ventoy Version	1.0.89
Partition Style	GPT
Secure Boot Support	Disable

Below the interface is a terminal window showing the execution of the Plugson plugin. A red arrow points from the 'Device Information' menu item in the sidebar to the terminal. The terminal output is as follows:

```
guenter@guenter-Mint-T470:~/Programme/ventoy-1.0.89$ sudo /home/guenter/Programm  
e/ventoy-1.0.89/VentoyPlugson.sh /dev/sdc  
Ventoy version in Disk: 1.0.89  
Disk Partition Style : GPT  
Secure Boot Support : NO  
/dev/sdc1 is mounted at /media/guenter/Ventoy exFAT  
create ventoy directory  
  
=====
```

Ventoy Plugson Server is running ...  
Please open your browser and visit <http://127.0.0.1:24681>

```
=====
```

##### Press Ctrl + C to exit #####

# Plugins – ventoy.json

## Why we need plugin

Ventoy's boot menu is not so pretty, can I customize its theme?

I want to set the boot menu's name by myself.

My OS is not supported by current version of Ventoy.

I want to add some feature to Ventoy, like auto installation.

... ..

In my plan, plugin is used to customize and enhance Ventoy. All the problems above can be solved by some plugin.

## Plugin Entrypoint

A `ventoy.json` file must be exist in `/ventoy` directory under the first partition(along with the iso files).

All the configuration rules are in the json file `ventoy.json` and all the related plugin files are under `/ventoy` directory.

`/ventoy` directory must be in the root of 1st partition which used to hold the image files(NOT the 32MB VTOYEFI partition).

The 1st partition is empty after install, so you need to create `/ventoy` directory and `ventoy.json` file by yourself.

For more detailed descriptions about configuration rules and plugin interfaces, you can refer to the relate documents in [Document](#).

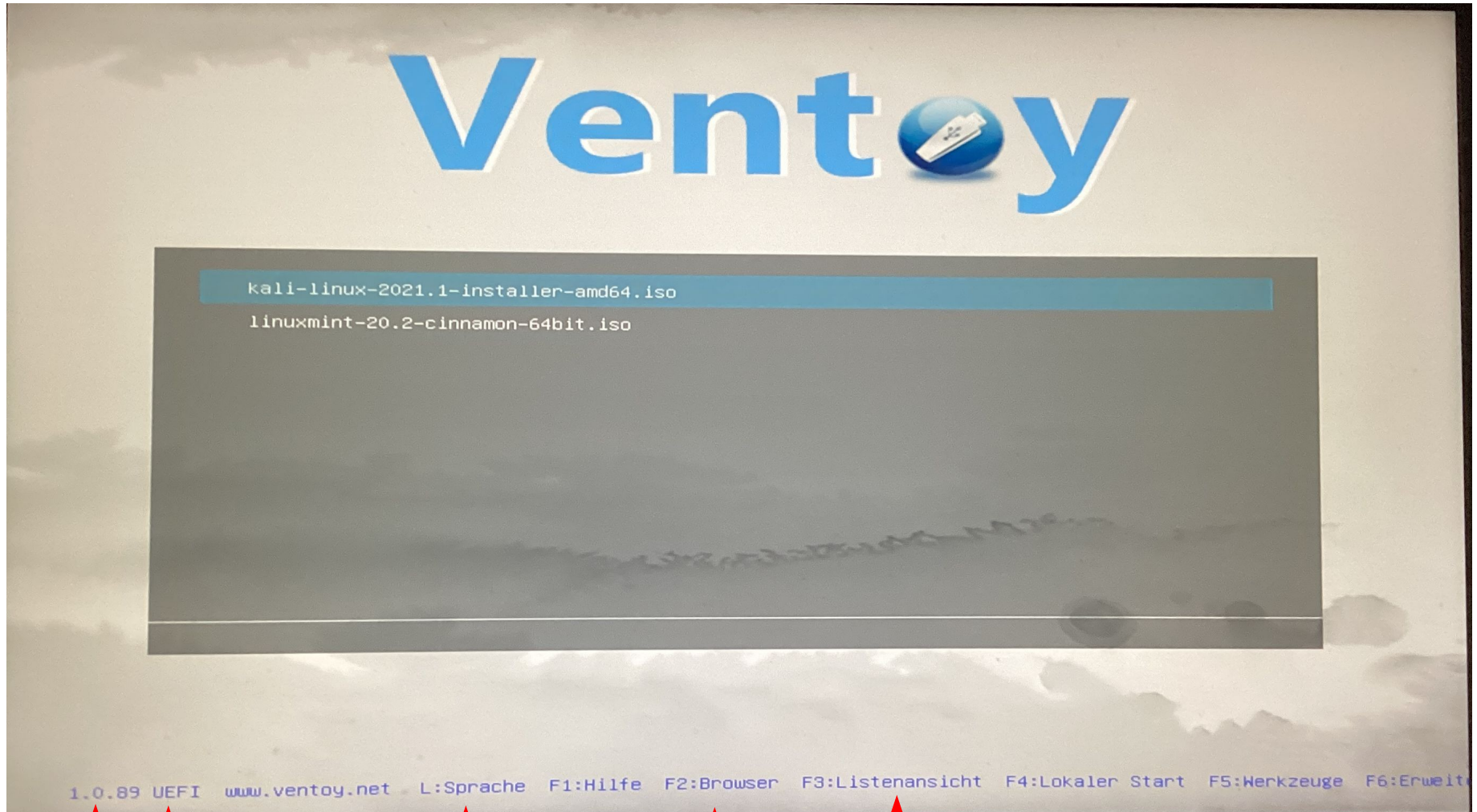


# Beispiel Persistence Plugin

- Persistenzdaten werden in einer Datei gespeichert, die hier dem ISO-Image zugeordnet wird.
  - [Online-Hilfe](#) verlinkt

The screenshot displays the Ventoy Plugson application interface. The main window is titled 'Ventoy Plugson' and features a sidebar with various plugin categories. The 'Persistence Plugin' is selected and highlighted with a red box. The main content area shows the 'Persistence Plugin' settings, with tabs for 'persistence', 'persistence\_legacy', and 'persistence\_uefi'. Below the tabs is a table with columns for '#', 'Setting', and 'Value'. A 'Set Persistence' dialog box is open in the foreground, containing two input fields: 'File Path' and 'Dat File'. Both fields have example paths provided below them. The 'File Path' example is `/media/guenter/Ventoy/ISO/ubuntu-20.04-desktop-amd64.iso` and `/media/guenter/Ventoy/ISO/ubuntu-*****-desktop-amd64.iso`. The 'Dat File' example is `/media/guenter/Ventoy/ventoy/ubuntu_persistence.dat`. The dialog box has 'OK' and 'Cancel' buttons at the bottom right. A red box highlights the top navigation bar of the application, which includes a 'Preview' button, a language selector (中文), a 'Donation' button, and the 'Ventoy' logo. Another red box highlights a 'Reset' button and a 'Plugin Official Document' link in the top right corner of the main window.

# Booten vom Stick - Startmenü



Version

Format

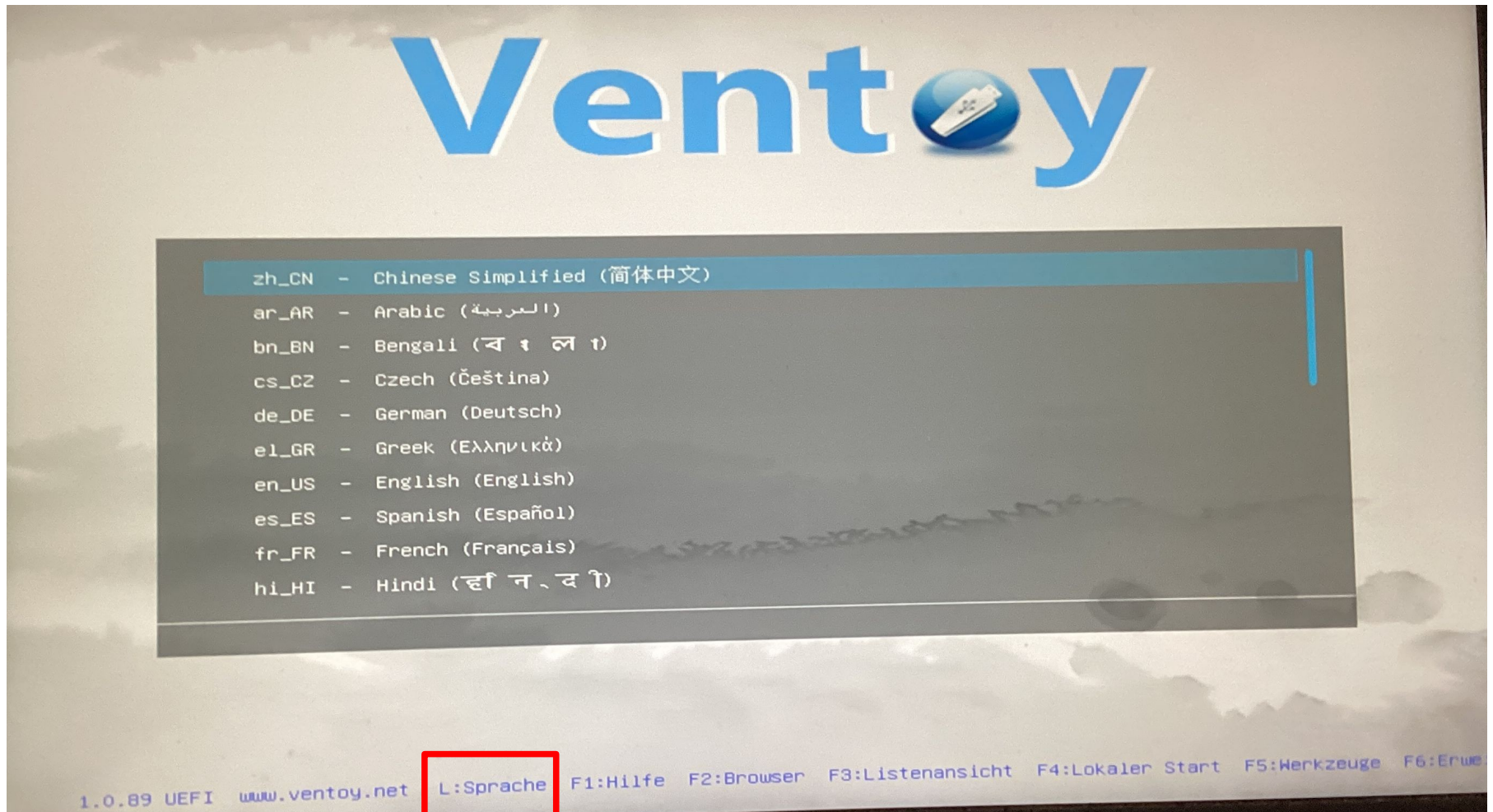
Sprachauswahl

Suche lokal nach  
bootbaren Partitions

Liste vs. Baum

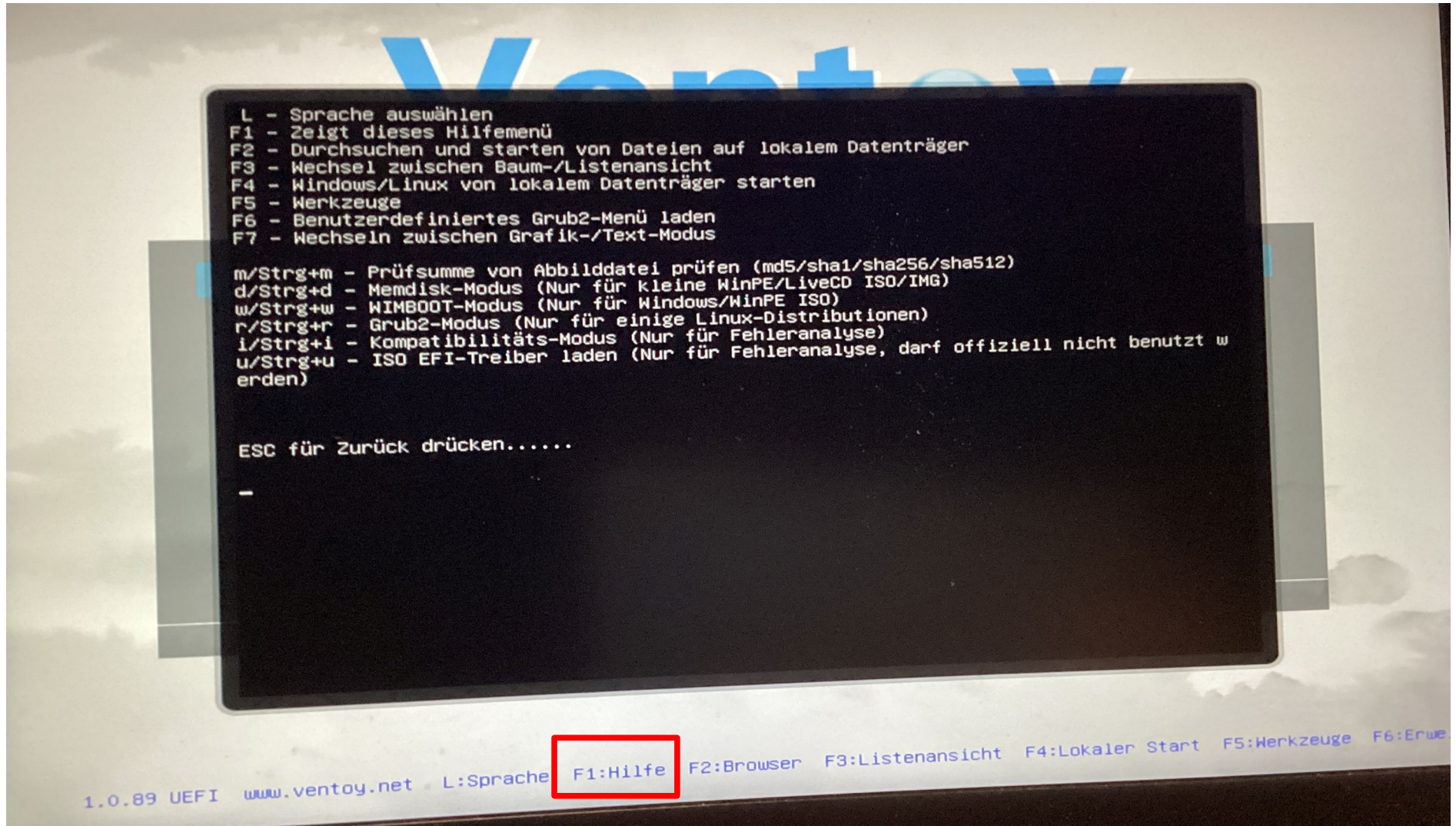


# Bootstick - Sprachauswahl





# Bootstick - Hilfe





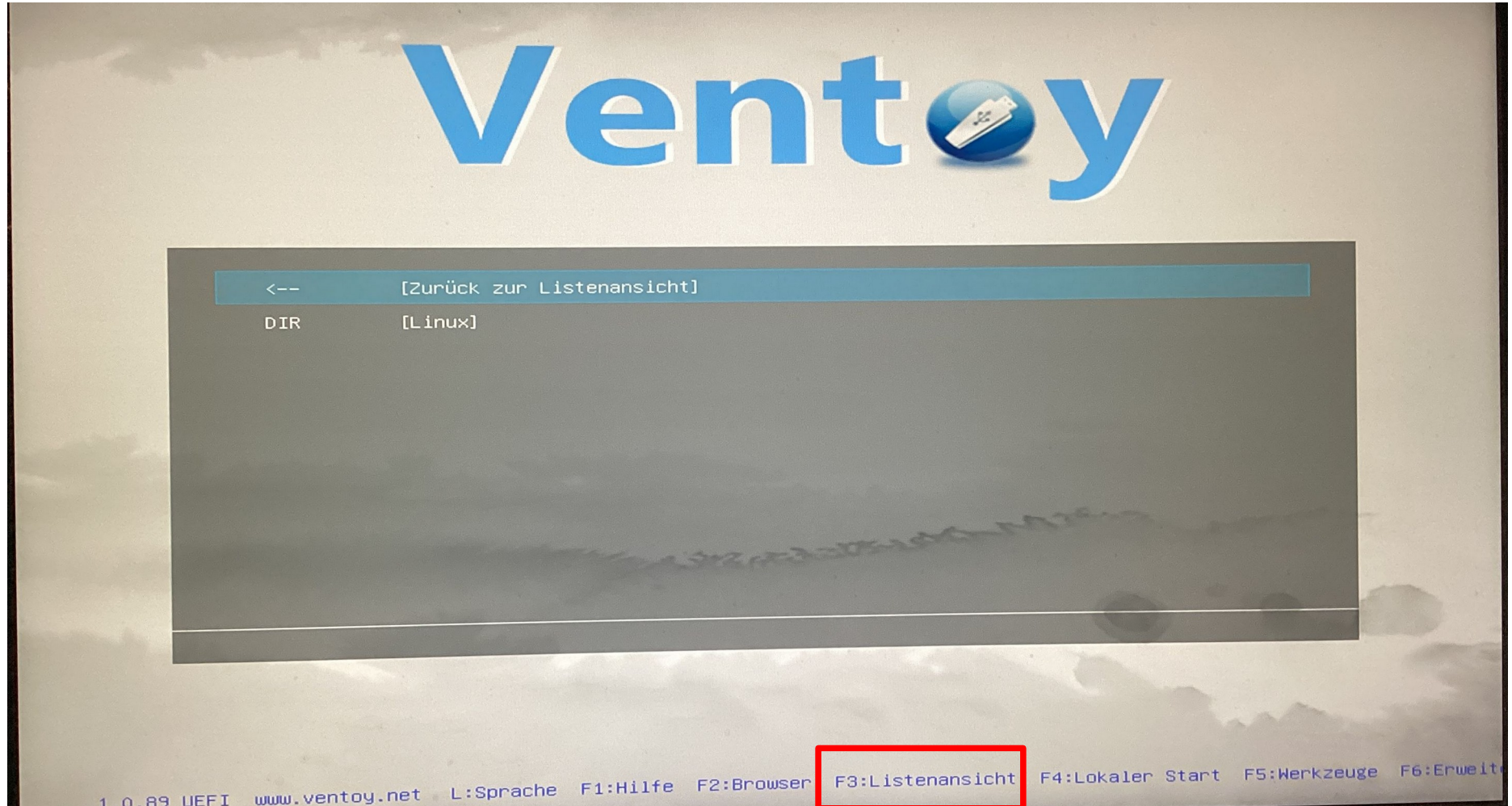
# Bootstick - Browser

Partition	Name	Dateisystem	Einhängepunkt	Bezeichnung	Größe
/dev/sda1	Basic data partition	ntfs		Windows RE	1.00 GiB
/dev/sda2	EFI system partition	fat32	/boot/efi	SYSTEM	260.00 MiB
/dev/sda3	Microsoft reserved partition	unbekannt			500.00 MiB
/dev/sda4	Basic data partition	ntfs		Windows	232.48 GiB
/dev/sda5	Basic data partition	ntfs		ctRecovery	1000.00 MiB
nicht zugeteilt		nicht zugeteilt			24.00 MiB
/dev/sda6		ext4	/		698.64 GiB
/dev/sda7	Basic data partition	ntfs		Recovery	20.00 GiB

```

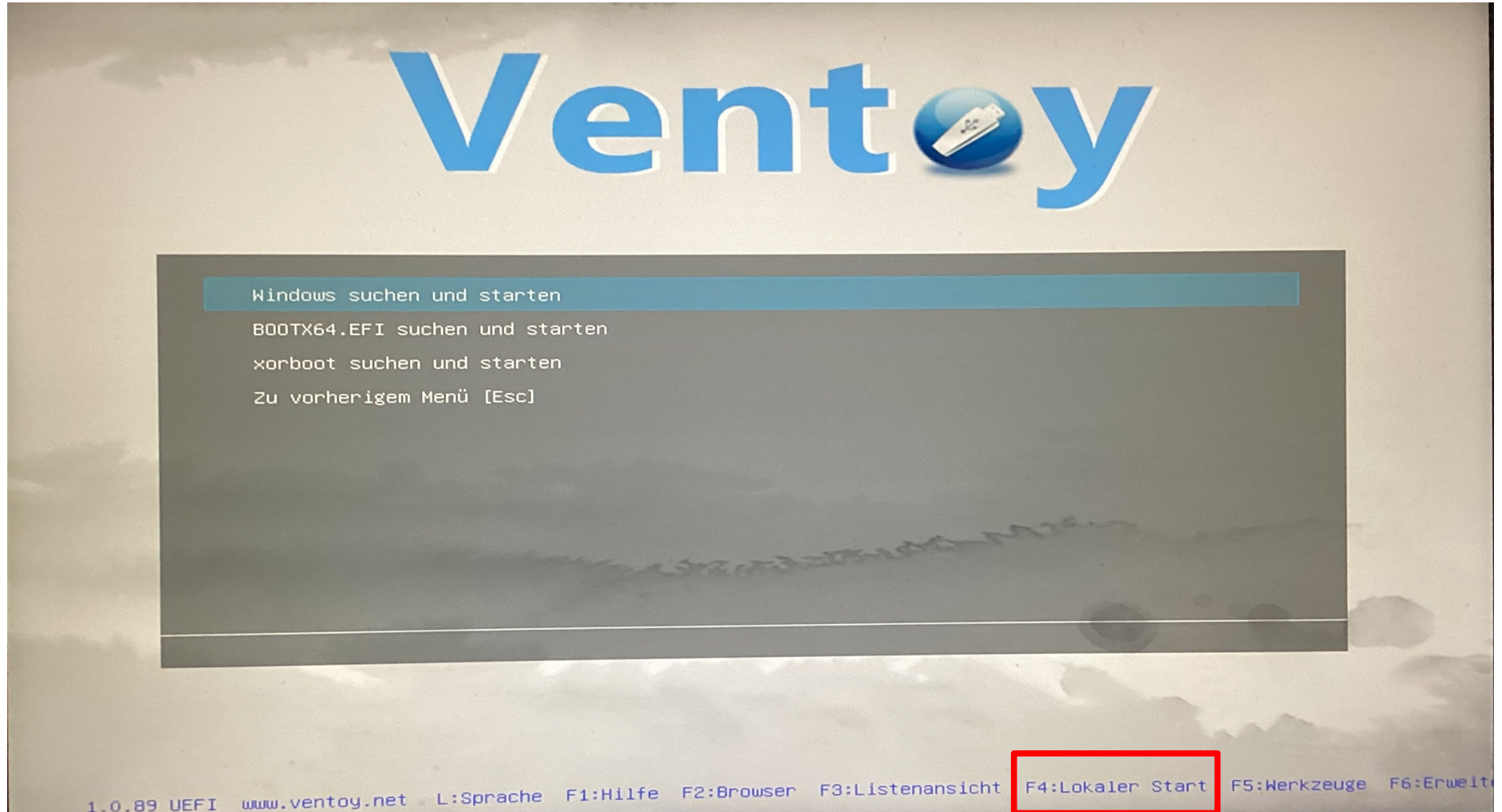
<-- [Zurück]
DISK (hd0,msdos1) [Ventoy] exfat 14.81GB
DISK (hd1,msdos1) [Windows RE] ntfs 1.00GB
DISK (hd1,msdos2) [SYSTEM] fat 260.00MB
DISK (hd1,msdos4) [Windows] ntfs 232.48GB
DISK (hd1,msdos5) [ctRecovery] ntfs 1000.00MB
DISK (hd1,msdos6) [] ext2 698.64GB
DISK (hd1,msdos7) [Recovery] ntfs 20.00GB
  
```

# Bootstick – List vs. Tree View

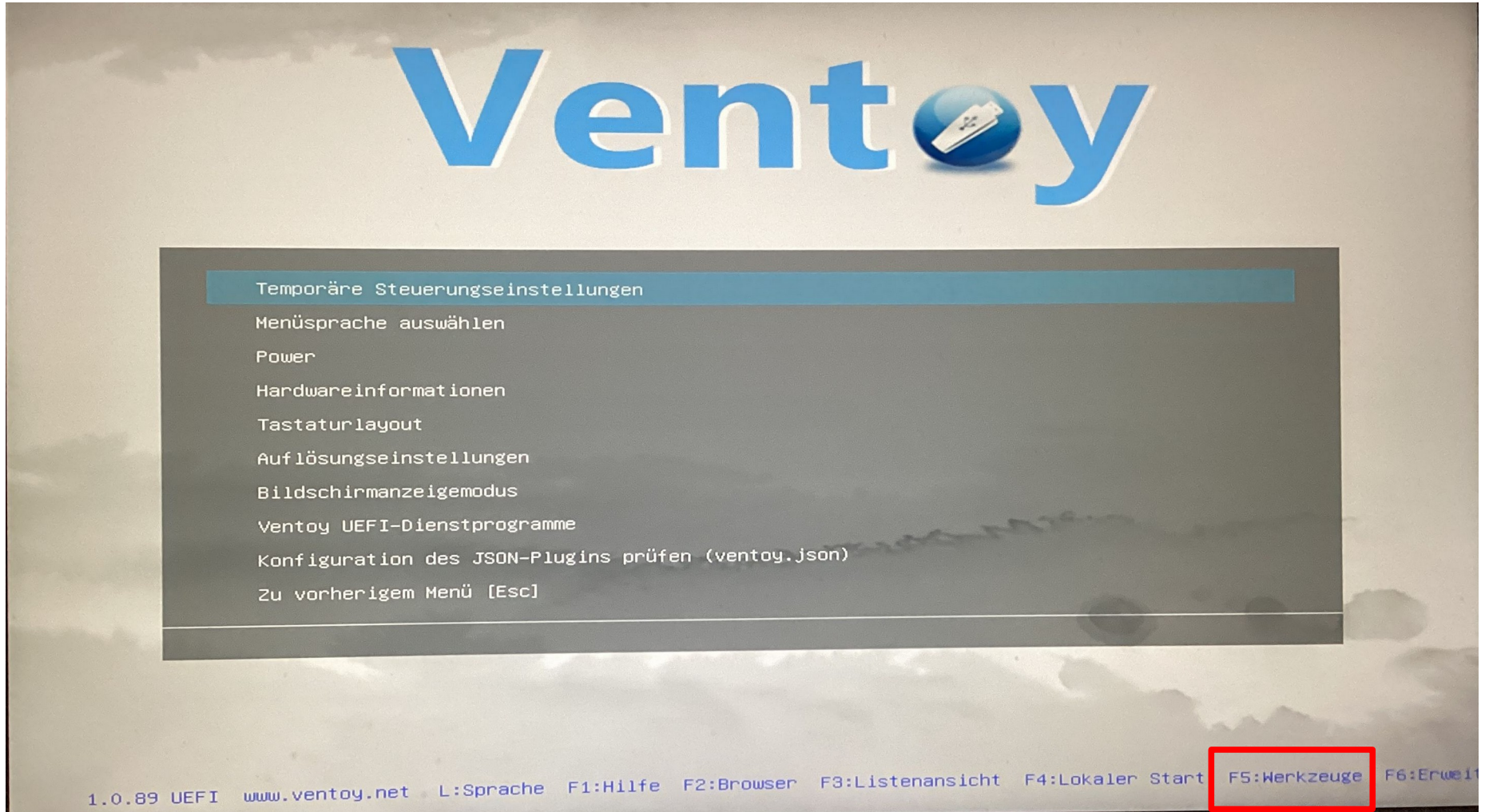




# Bootstick – Lokales Windows/Linux



# Bootstick – Werkzeuge





# Bootstick – Erweitert??

