

Winlux & Freedos

Eine Einführung in die Welt der Emulatoren

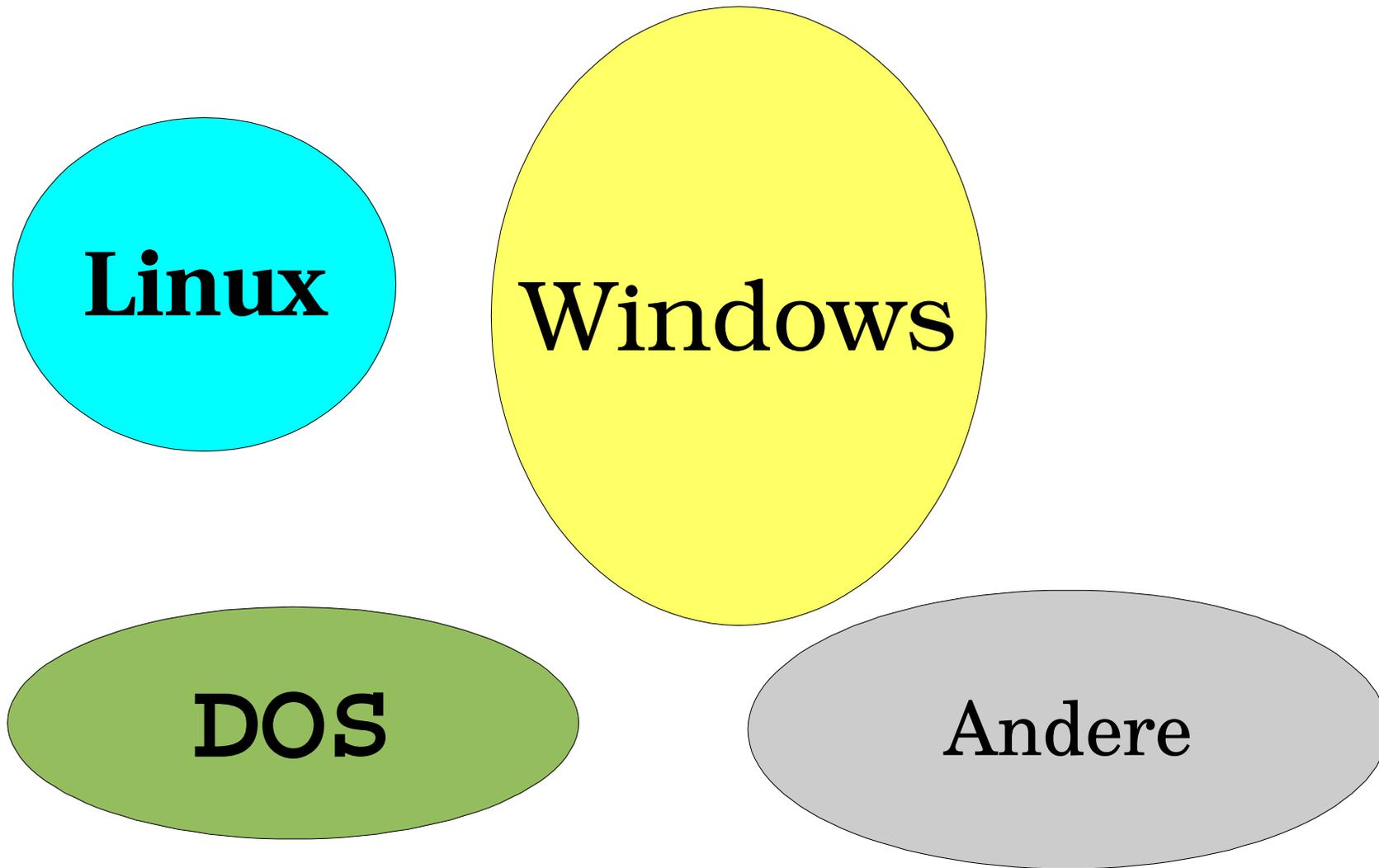
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“Kann Linux
das auch?”

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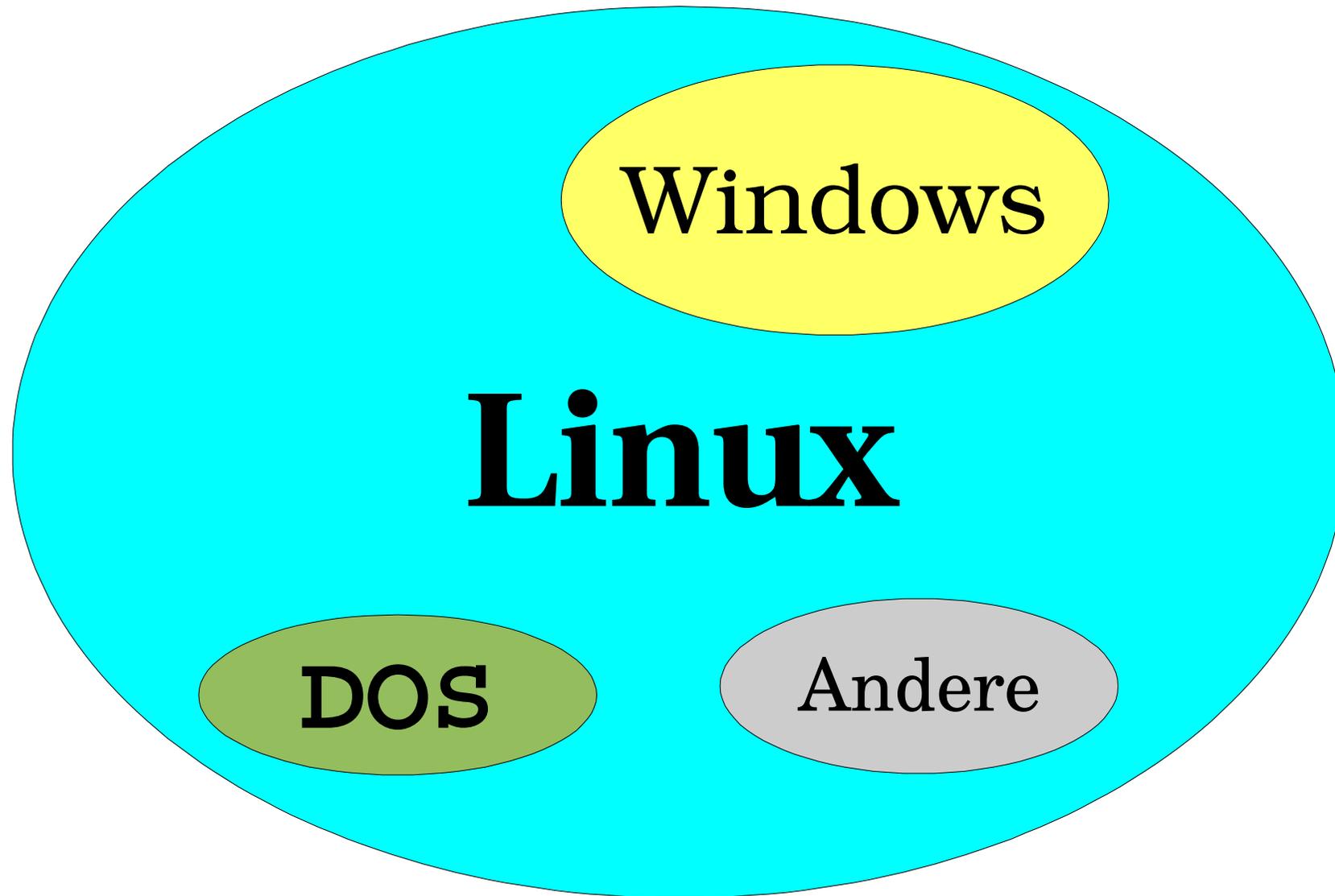
Um was geht
es in diesem
Vortrag?

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Die 4 Welten

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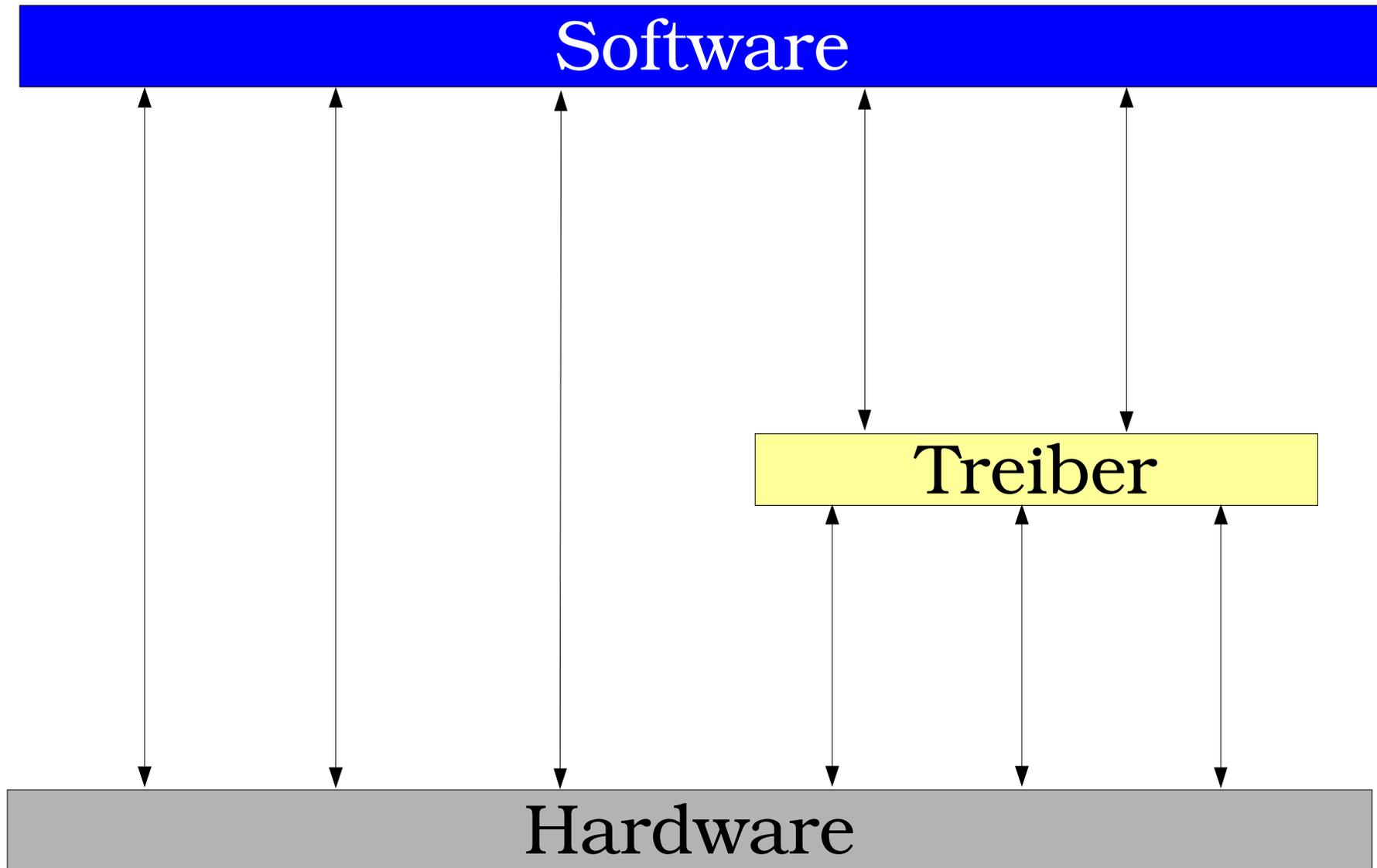


Aufgabenstellung

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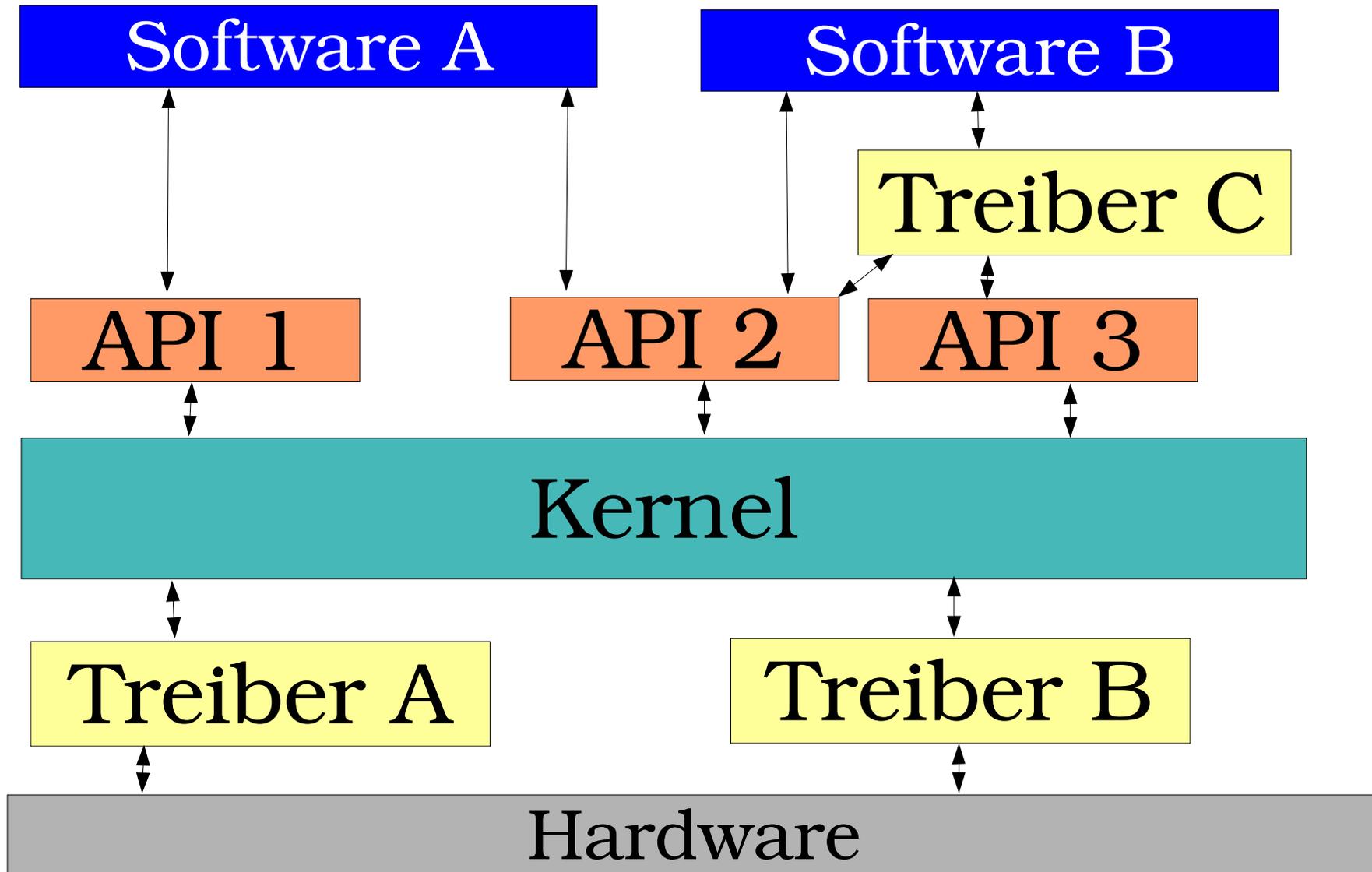
Die Theorie

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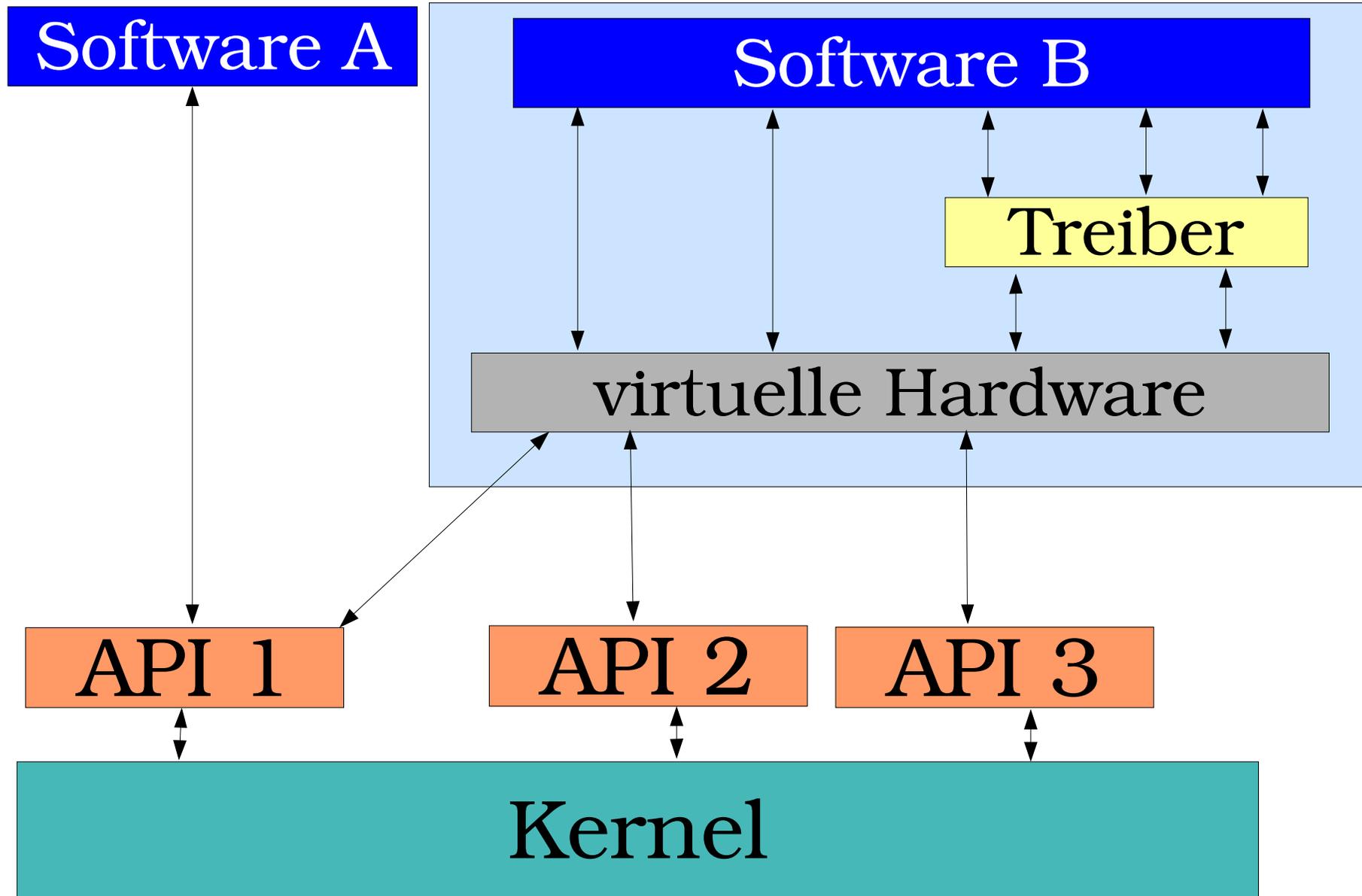
Prinzip: alte Software

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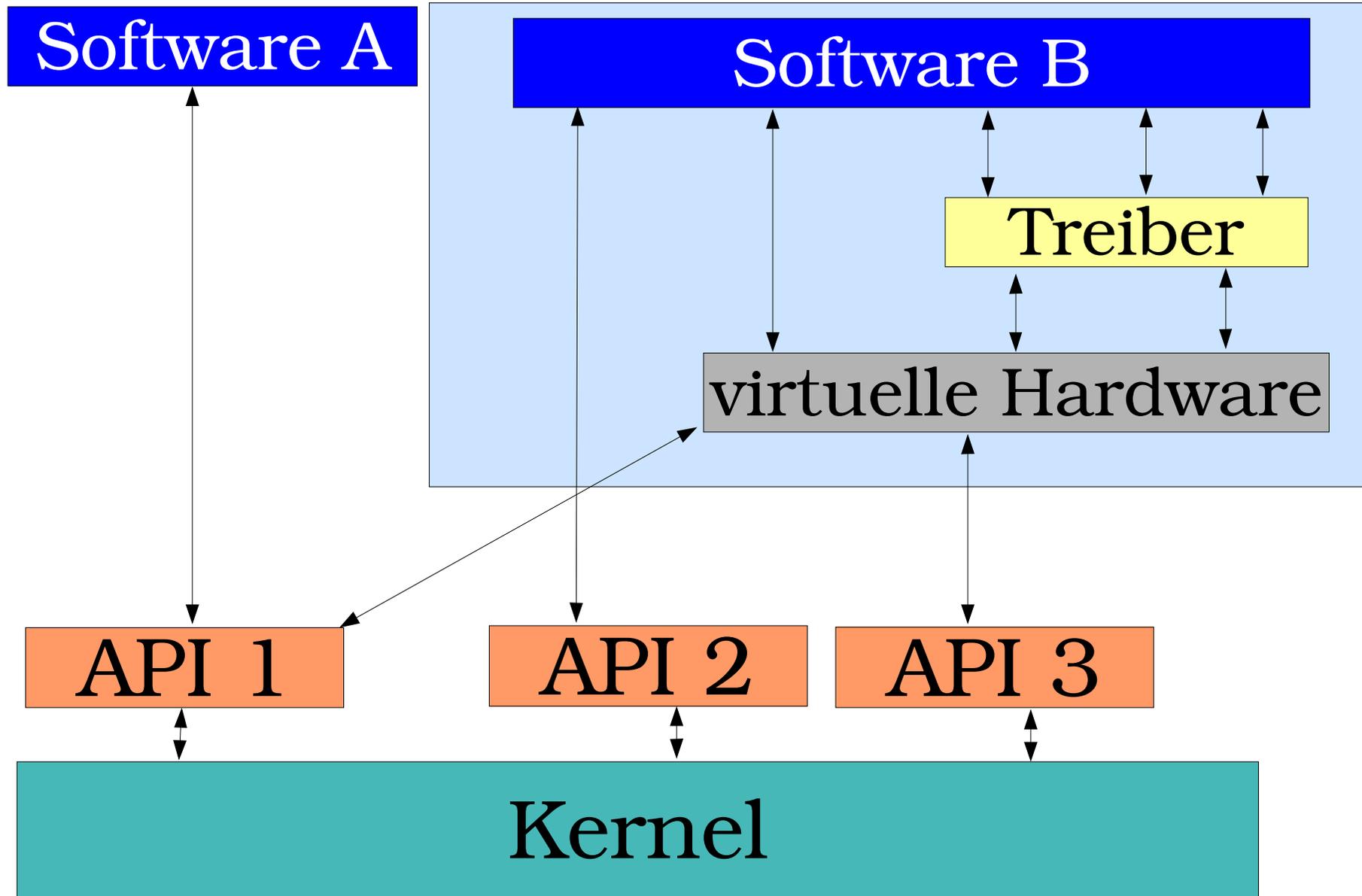
Prinzip: moderne Software

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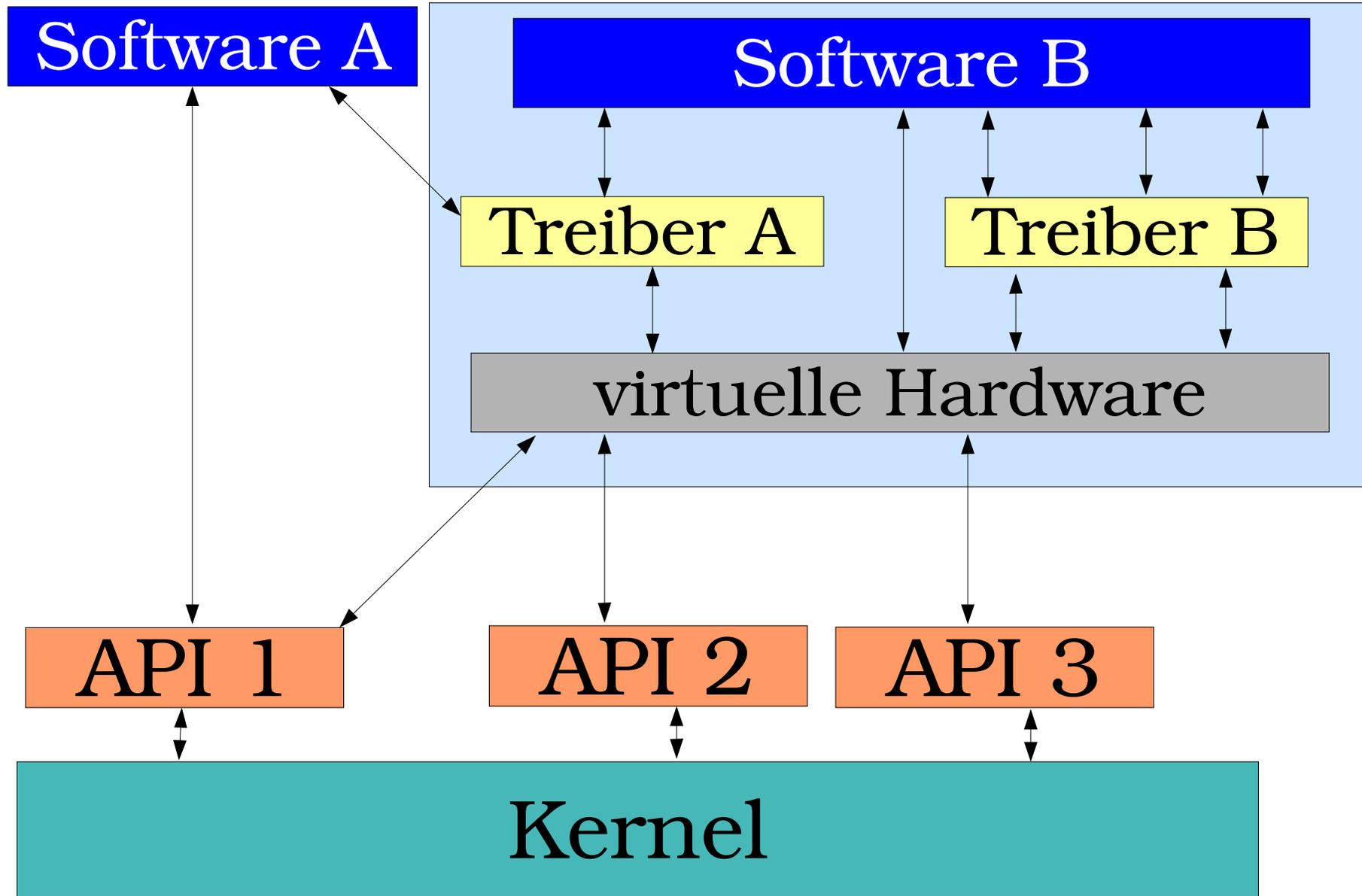
vollgekapselter Emulator

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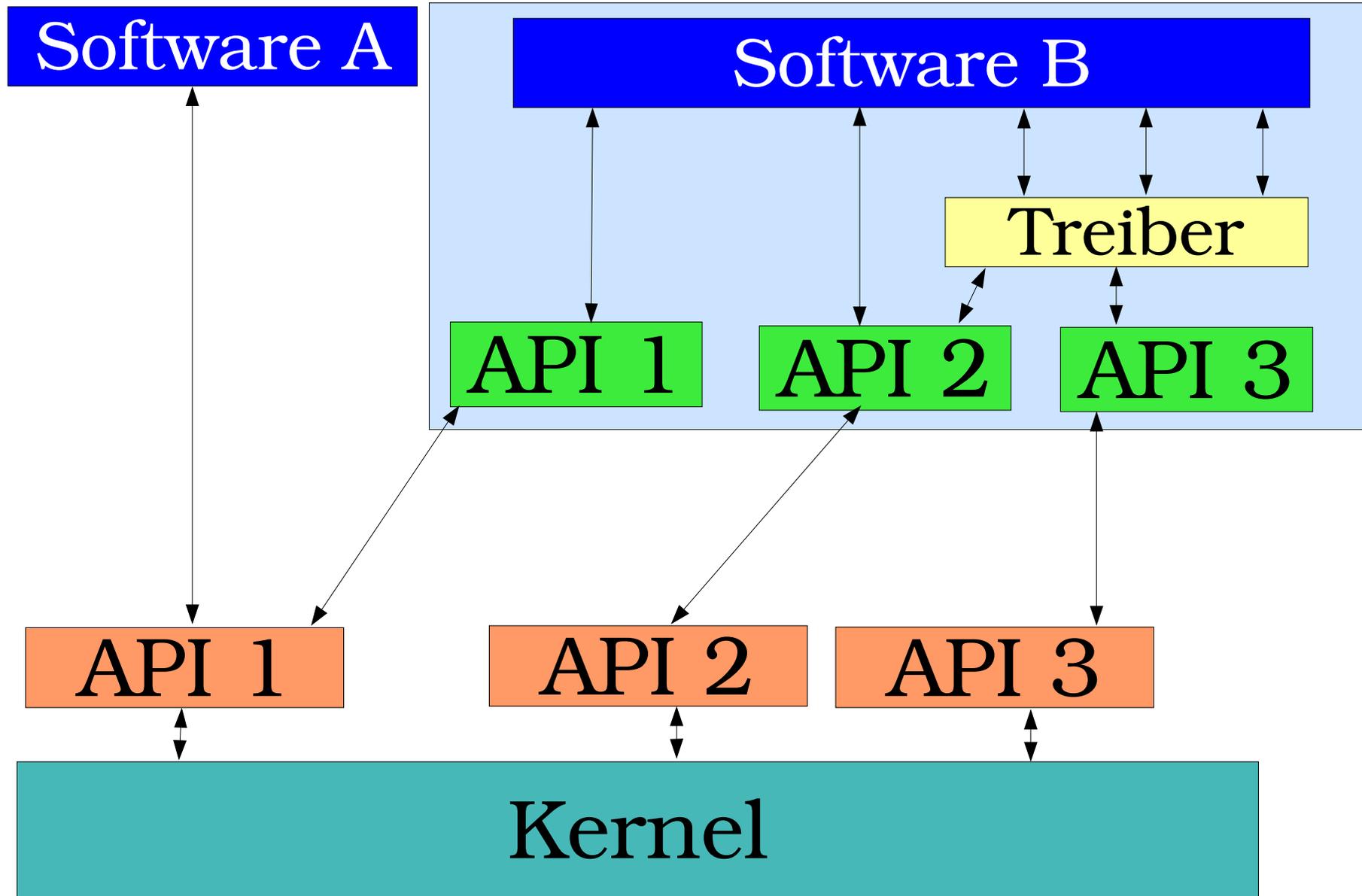
halbgekapselter Emulator (1)

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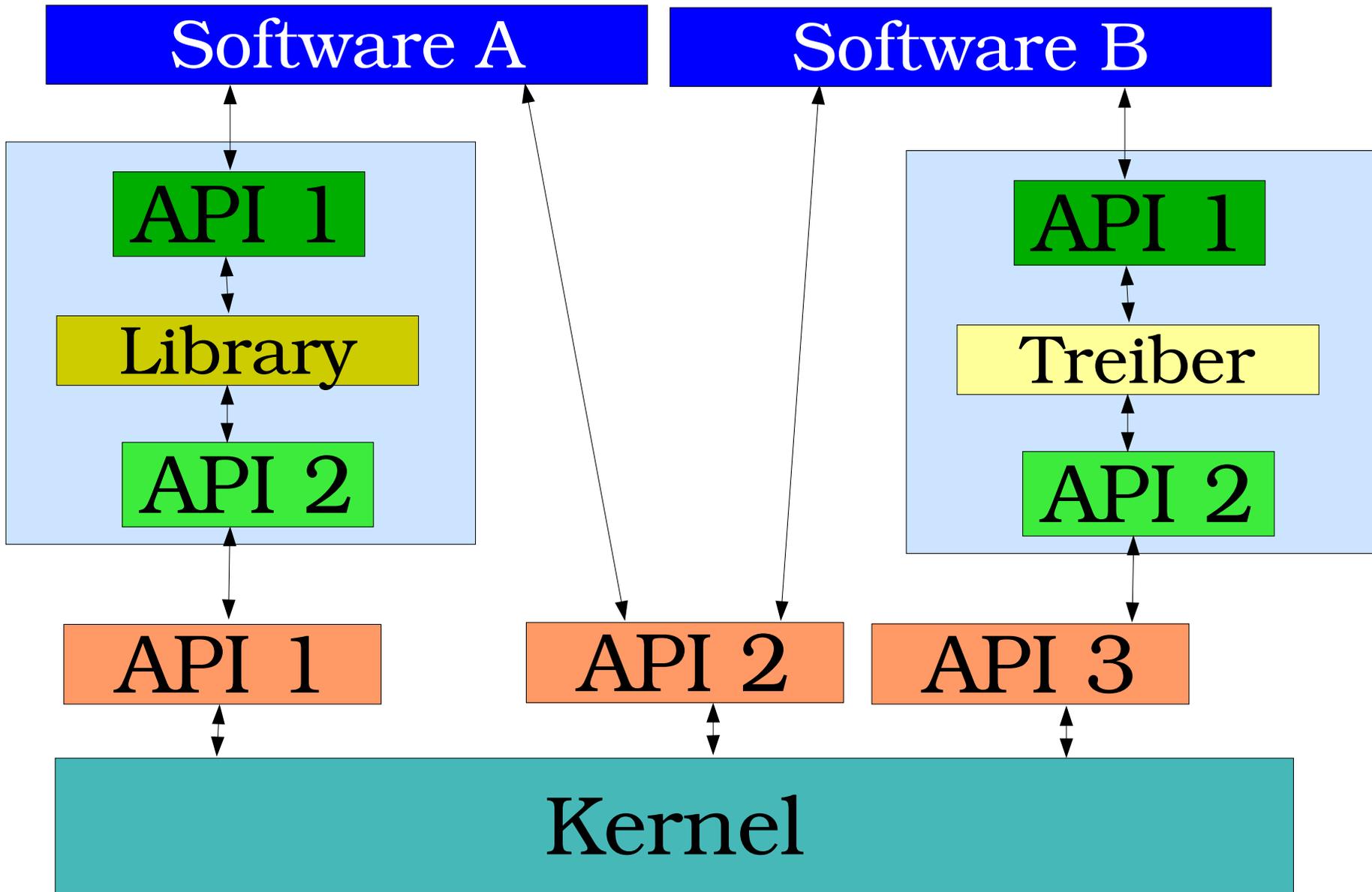
halbgekapselter Emulator (2)

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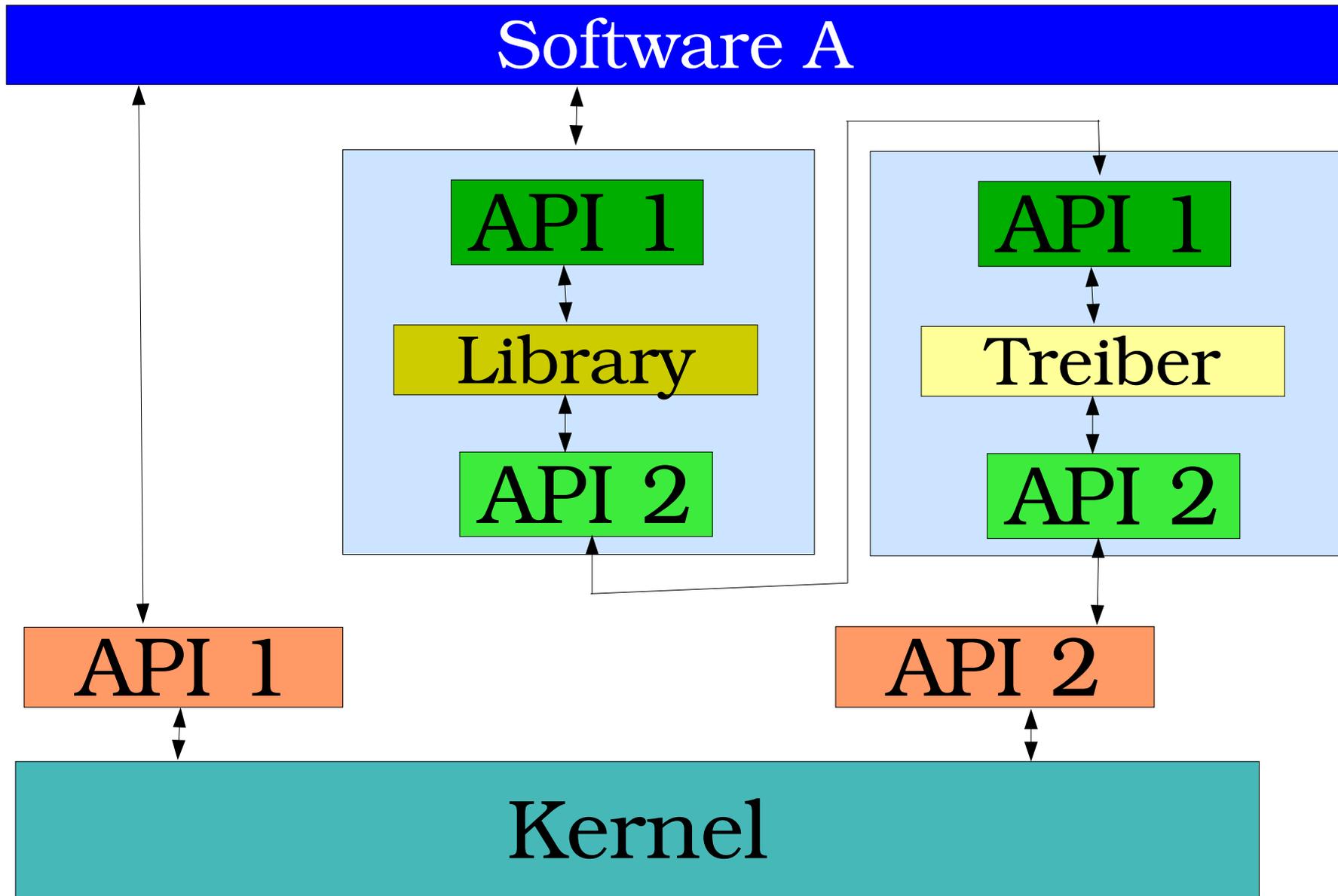
Thin-Layer Emulator (1)

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Thin-Layer Emulator (2)

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Thin-Layer Emulator (3)

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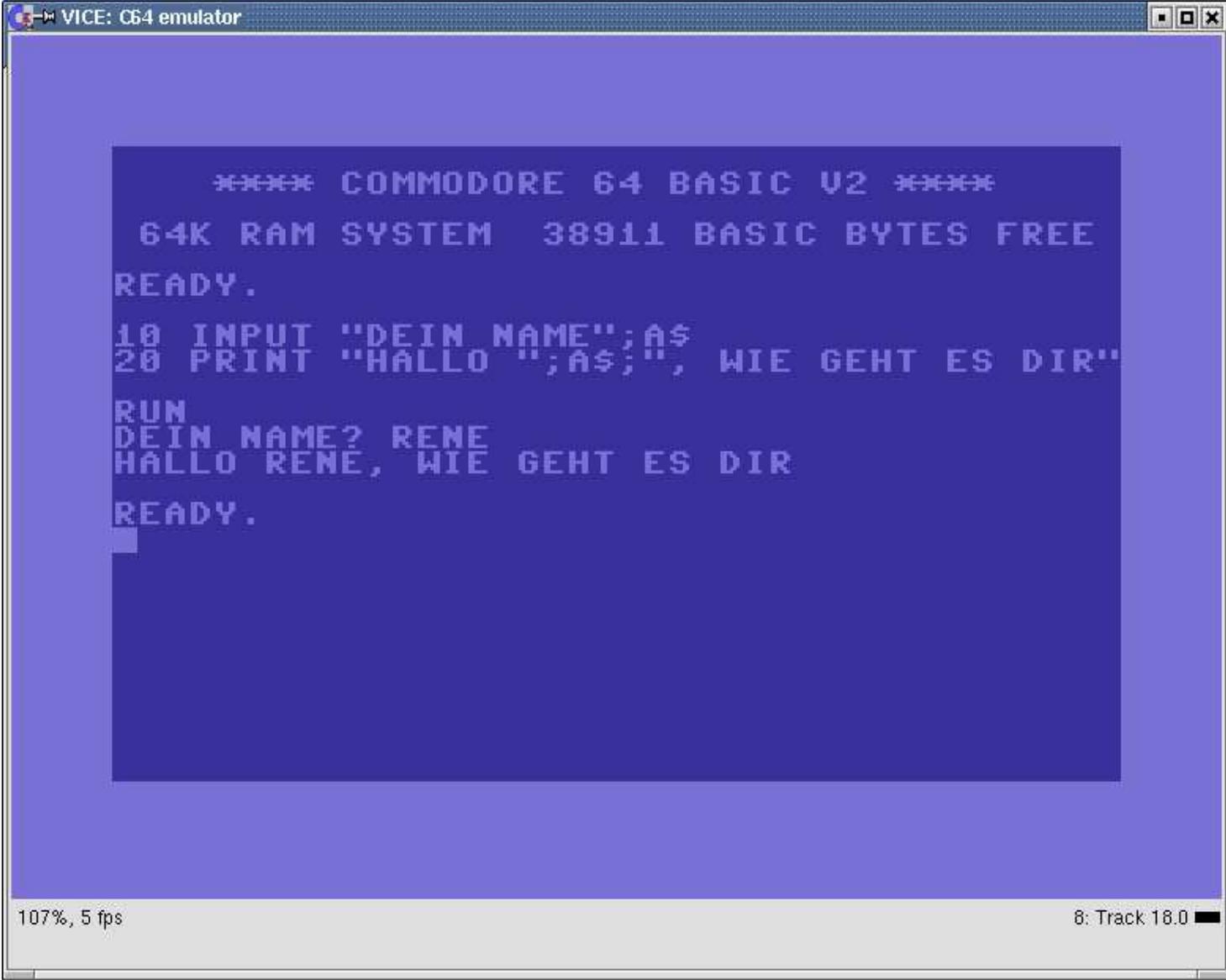
Die Praxis

Vollgekapselter Commodore Emulator

- *) Vollständige Emulation von Hardware und Betriebssystem
- *) Kein Zugriff auf Host-System möglich
- *) Zusätzliche Hardware (Joysticks etc) wird simuliert

VICE (1)

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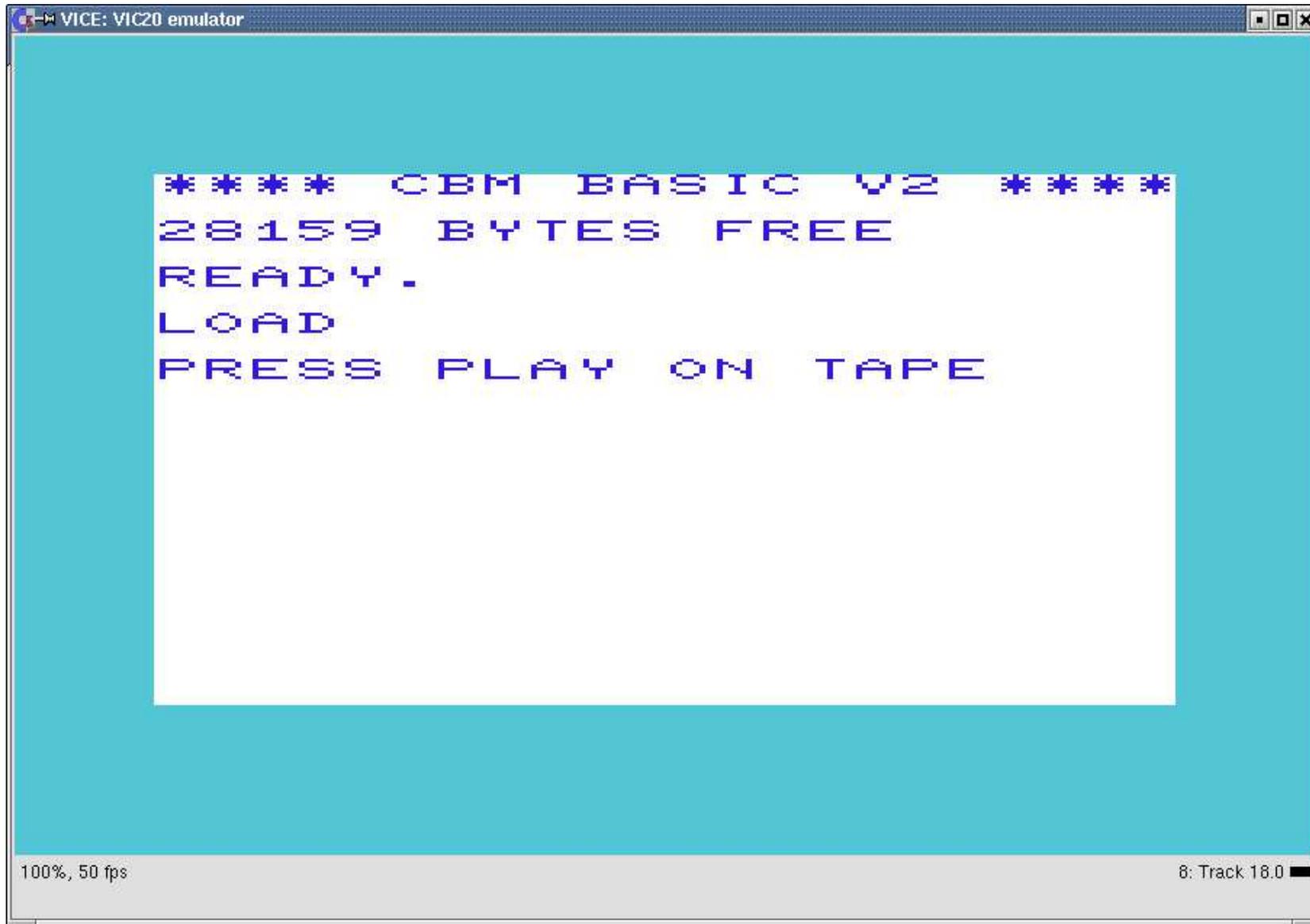
The image shows a screenshot of a VICE C64 emulator window. The window title is "VICE: C64 emulator". The main display area is a dark blue screen with light blue text. The text shows the start of a Commodore 64 BASIC program. The program includes a title screen, a memory status report, and a simple interactive program that asks for a name and prints a greeting. The program has been executed, and the user has entered the name "RENE".

```
**** COMMODORE 64 BASIC V2 ****
64K RAM SYSTEM  38911 BASIC BYTES FREE
READY.
10 INPUT "DEIN NAME";A$
20 PRINT "HALLO ";A$;"", WIE GEHT ES DIR"
RUN
DEIN NAME? RENE
HALLO RENE, WIE GEHT ES DIR
READY.
█
```

At the bottom left of the emulator window, it displays "107%, 5 fps". At the bottom right, it displays "8: Track 18.0" with a progress indicator.

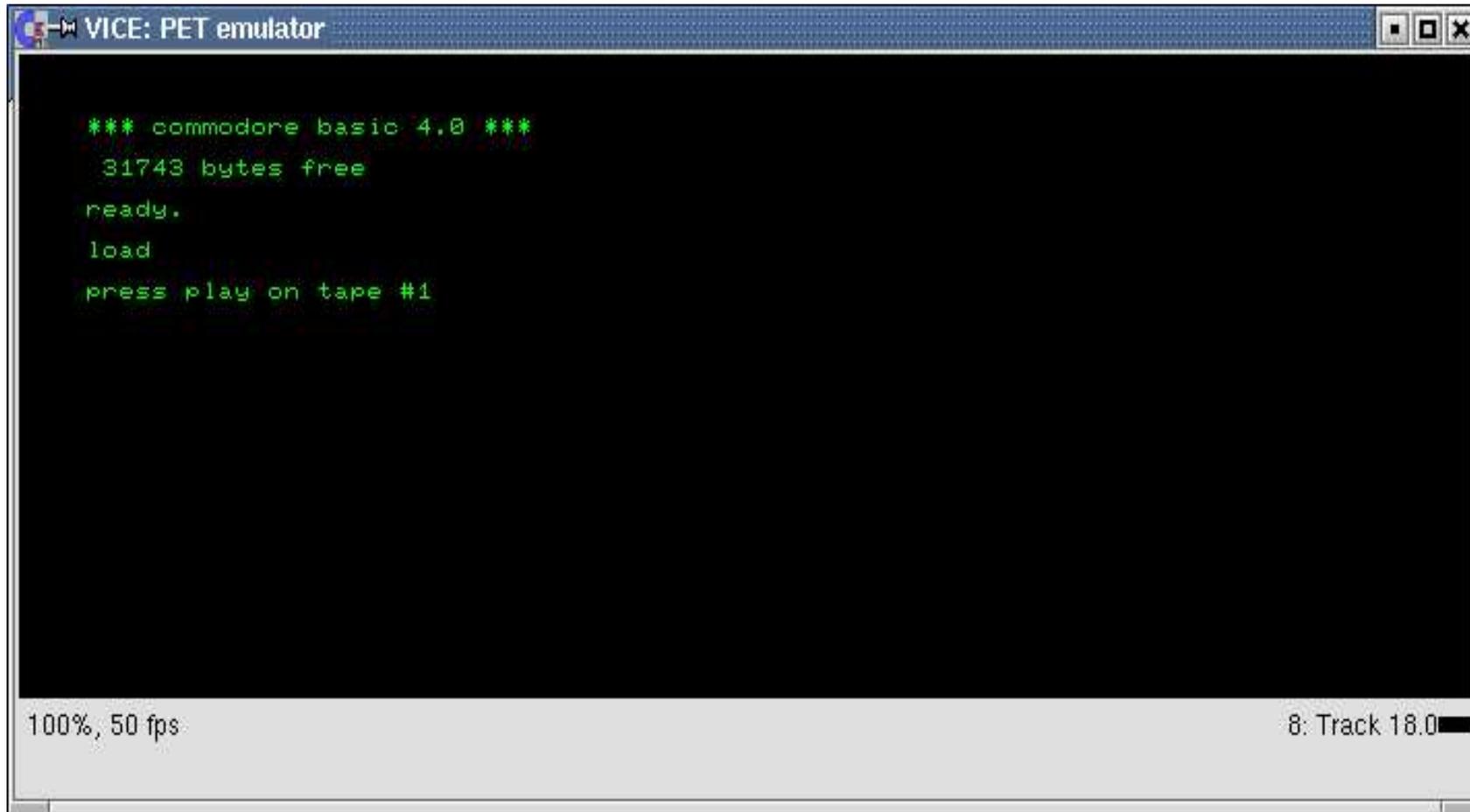
VICE (2) [C64]

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VICE (3) [VIC20]

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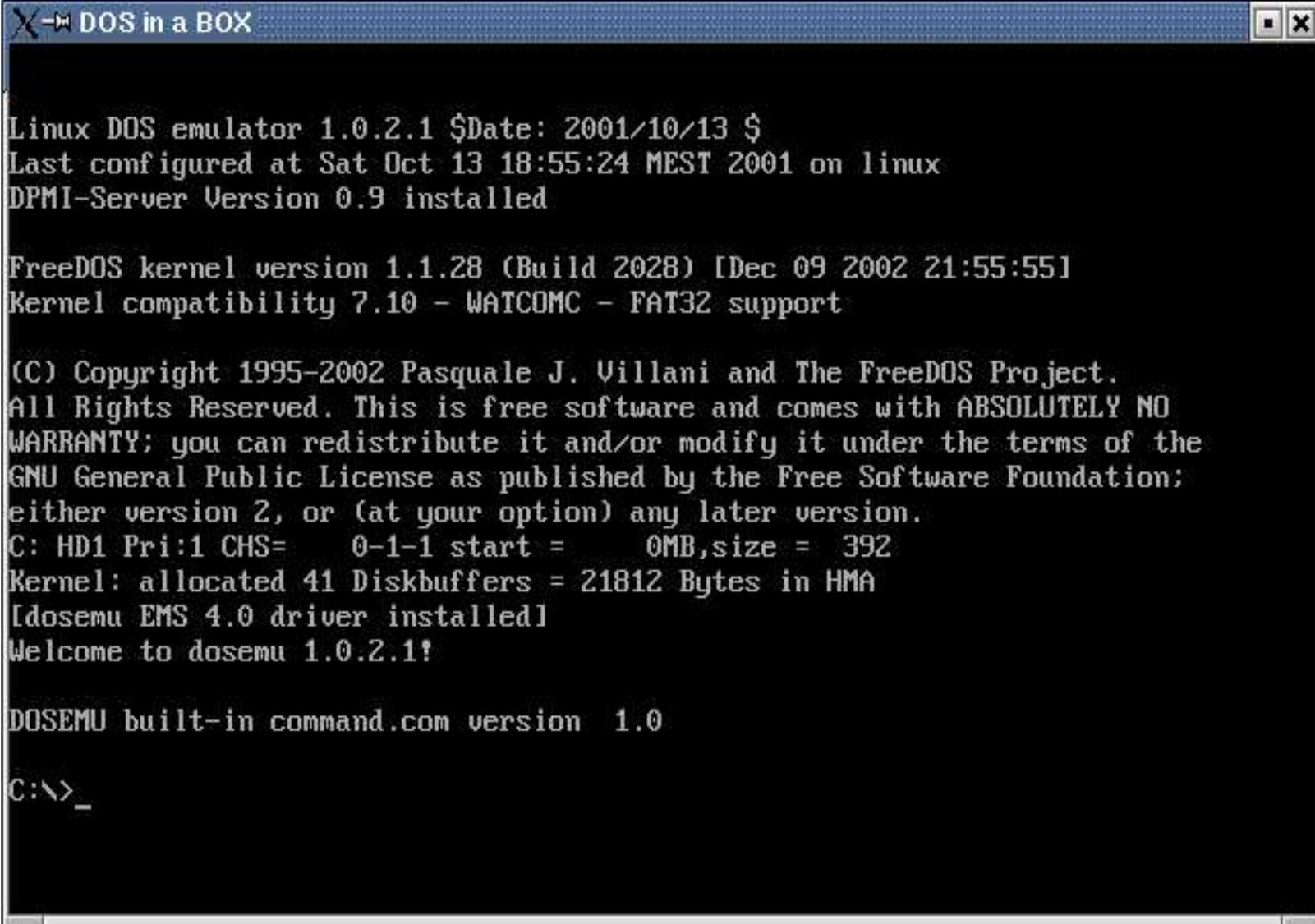
VICE (4) [PET]

Halbgekapselter DOS- Emulator

- *) Fast vollständige Emulation von Hardware und Betriebssystem (OS austauschbar)
- *) Wenig Zugriff auf Host-System möglich (auch nicht empfohlen)
- *) Taktrate des virtuellen PCs einstellbar

Dosemu/Freedos (1)

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```
X -> DOS in a BOX
Linux DOS emulator 1.0.2.1 $Date: 2001/10/13 $
Last configured at Sat Oct 13 18:55:24 MEST 2001 on linux
DPMI-Server Version 0.9 installed

FreeDOS kernel version 1.1.28 (Build 2028) [Dec 09 2002 21:55:55]
Kernel compatibility 7.10 - WATCOMC - FAT32 support

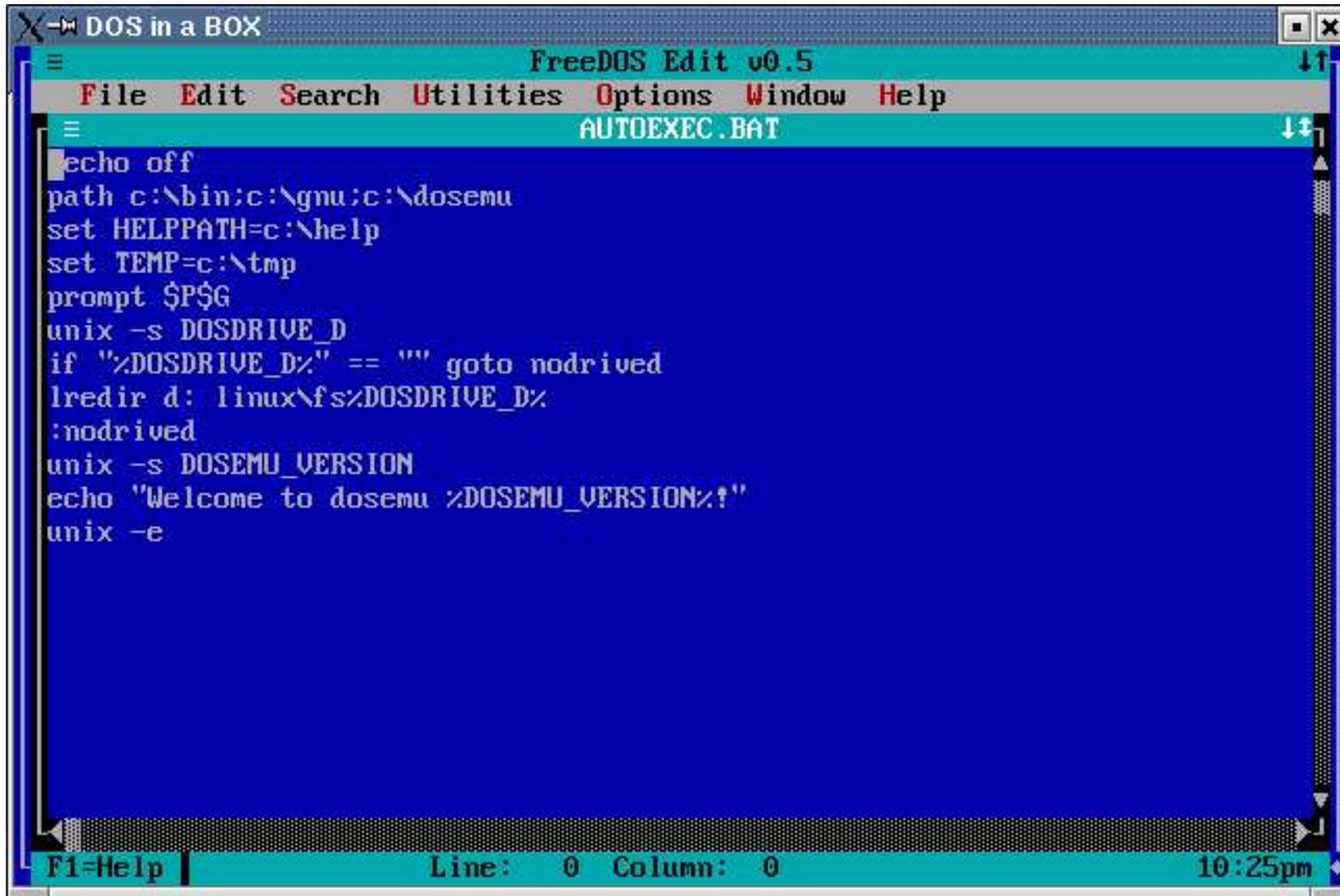
(C) Copyright 1995-2002 Pasquale J. Villani and The FreeDOS Project.
All Rights Reserved. This is free software and comes with ABSOLUTELY NO
WARRANTY; you can redistribute it and/or modify it under the terms of the
GNU General Public License as published by the Free Software Foundation;
either version 2, or (at your option) any later version.
C: HD1 Pri:1 CHS=    0-1-1 start =    0MB,size = 392
Kernel: allocated 41 Diskbuffers = 21812 Bytes in HMA
[dosemu EMS 4.0 driver installed]
Welcome to dosemu 1.0.2.1!

DOSEMU built-in command.com version 1.0

C:\>_
```

Dosemu/FreedOS (2)

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```
FreeDOS Edit v0.5
File Edit Search Utilities Options Window Help
AUTOEXEC.BAT
echo off
path c:\bin;c:\gnu;c:\dosemu
set HELPPATH=c:\help
set TEMP=c:\tmp
prompt $P$G
unix -s DOSDRIVE_D
if "%DOSDRIVE_D%" == "" goto nodrived
lredir d: linux\fs%DOSDRIVE_D%
:nodrived
unix -s DOSEMU_VERSION
echo "Welcome to dosemu %DOSEMU_VERSION%!>"
unix -e
F1=Help | Line: 0 Column: 0 10:25pm
```

Dosemu/Freedos (3)

Winlux & Freedos



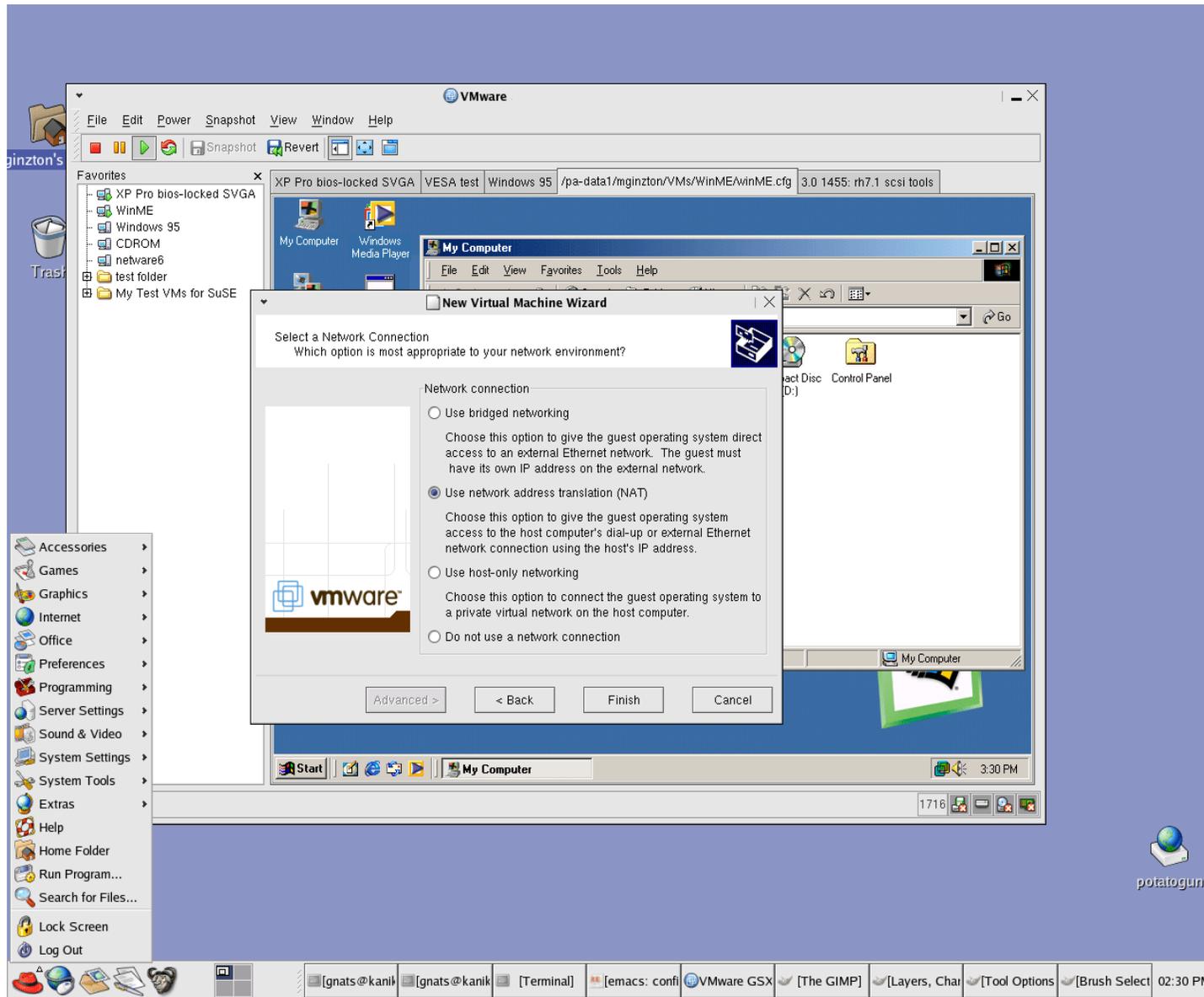
Dosemu/Freedos (4)

Halbgekapselter PC-Emulator

- *) Fast vollständige Emulation von PC-Hardware
- *) Zugriff auf Host-System über virtuelle Devices möglich.
- *) Booten eines OS direkt von einer realen oder einer virtuellen Festplatte
- *) Direktzugriff auf Hardware (theoretisch) möglich

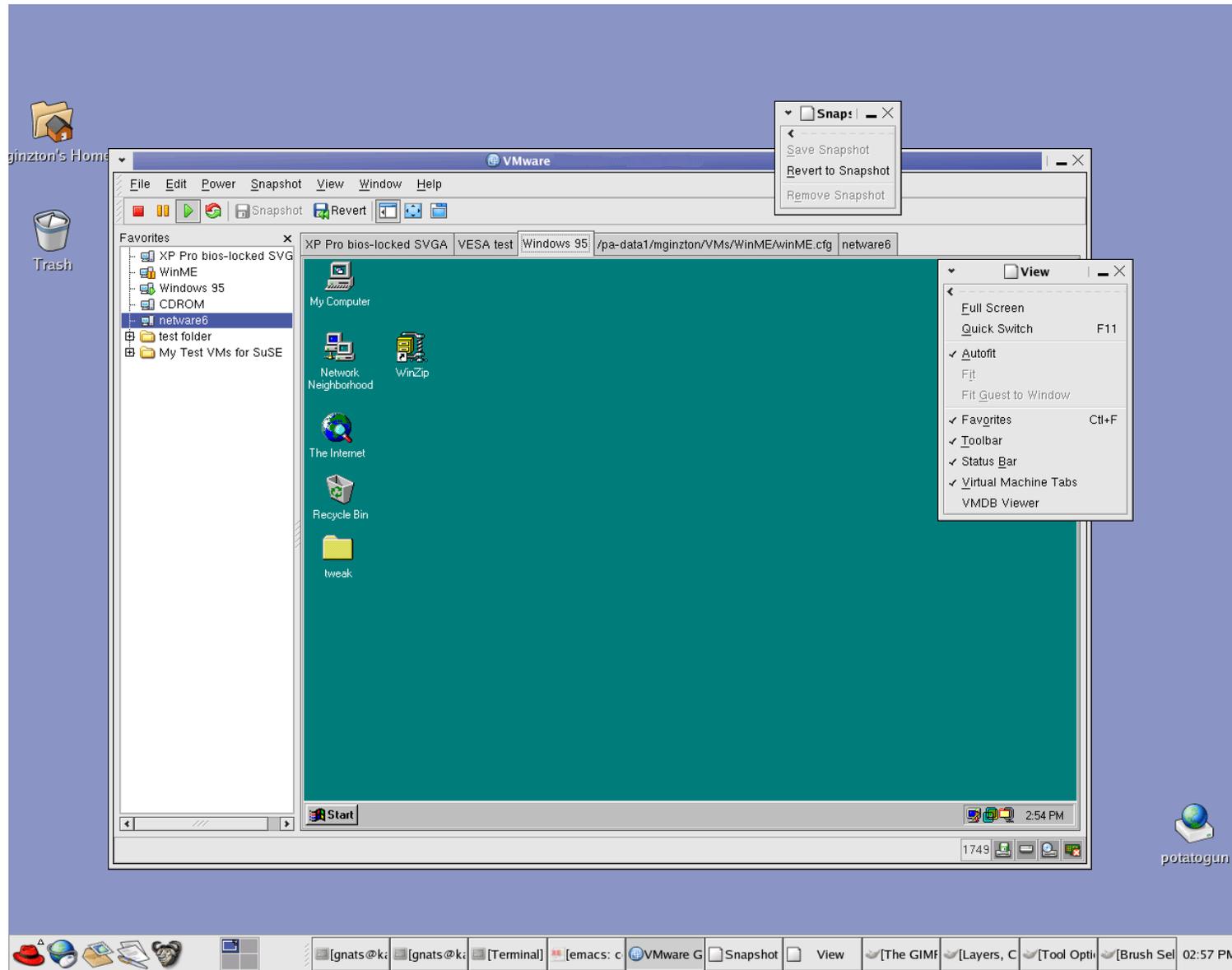
VMWare (1)

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VMWare (2)

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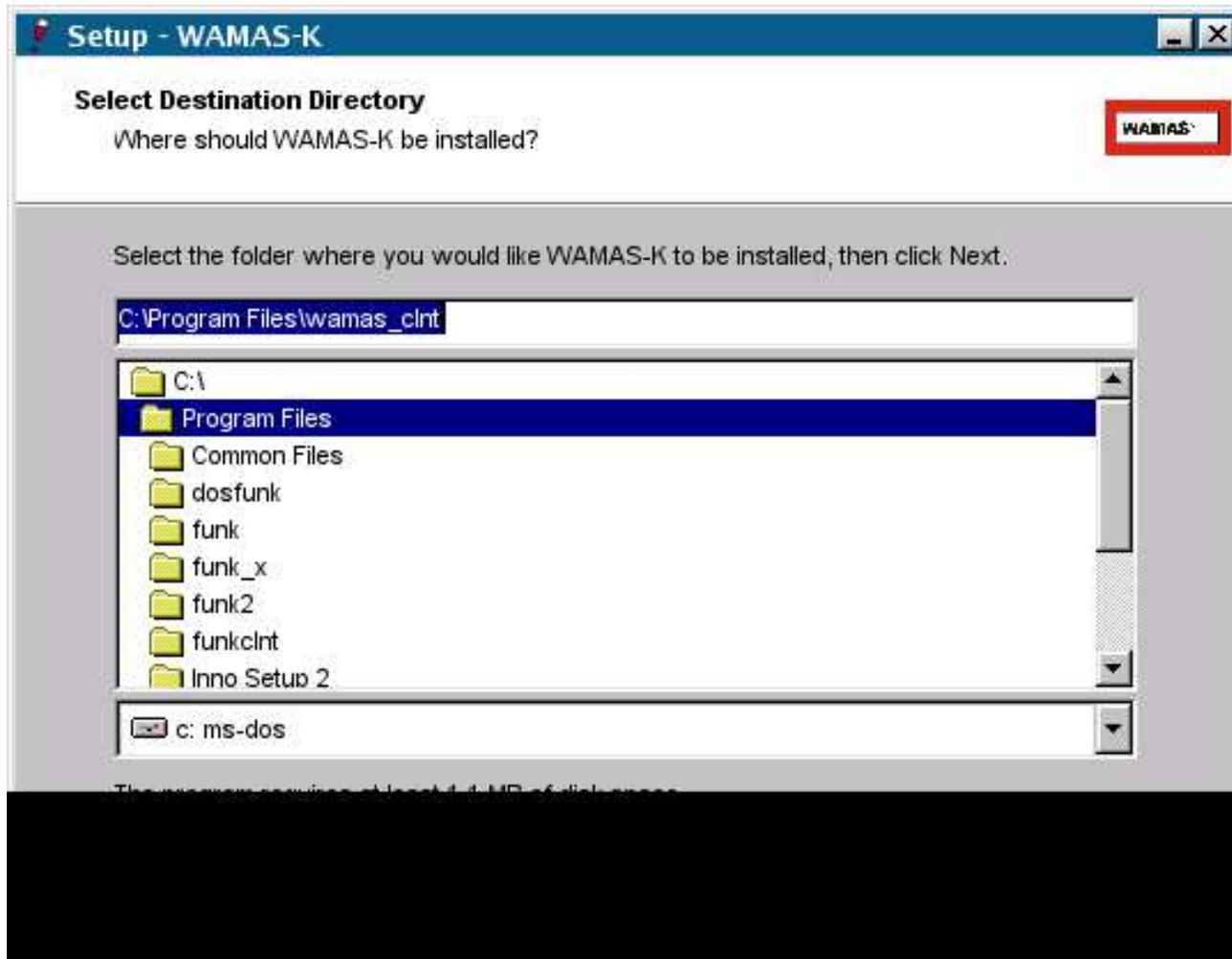
VMWare (3)

Thin-Layer Windows-Emulator

- *) Stellt Windows-Programmen APIs zur Verfügung
- *) Voller Zugriff auf Host-System über API's möglich.
- *) Integration in den Desktop (KDE, Gnome, ...)
- *) Thin-Layer-APIs auch von Linux-Programmen nutzbar (z.B. xine benutzt dll's für Windows Media Files)

wine (1)

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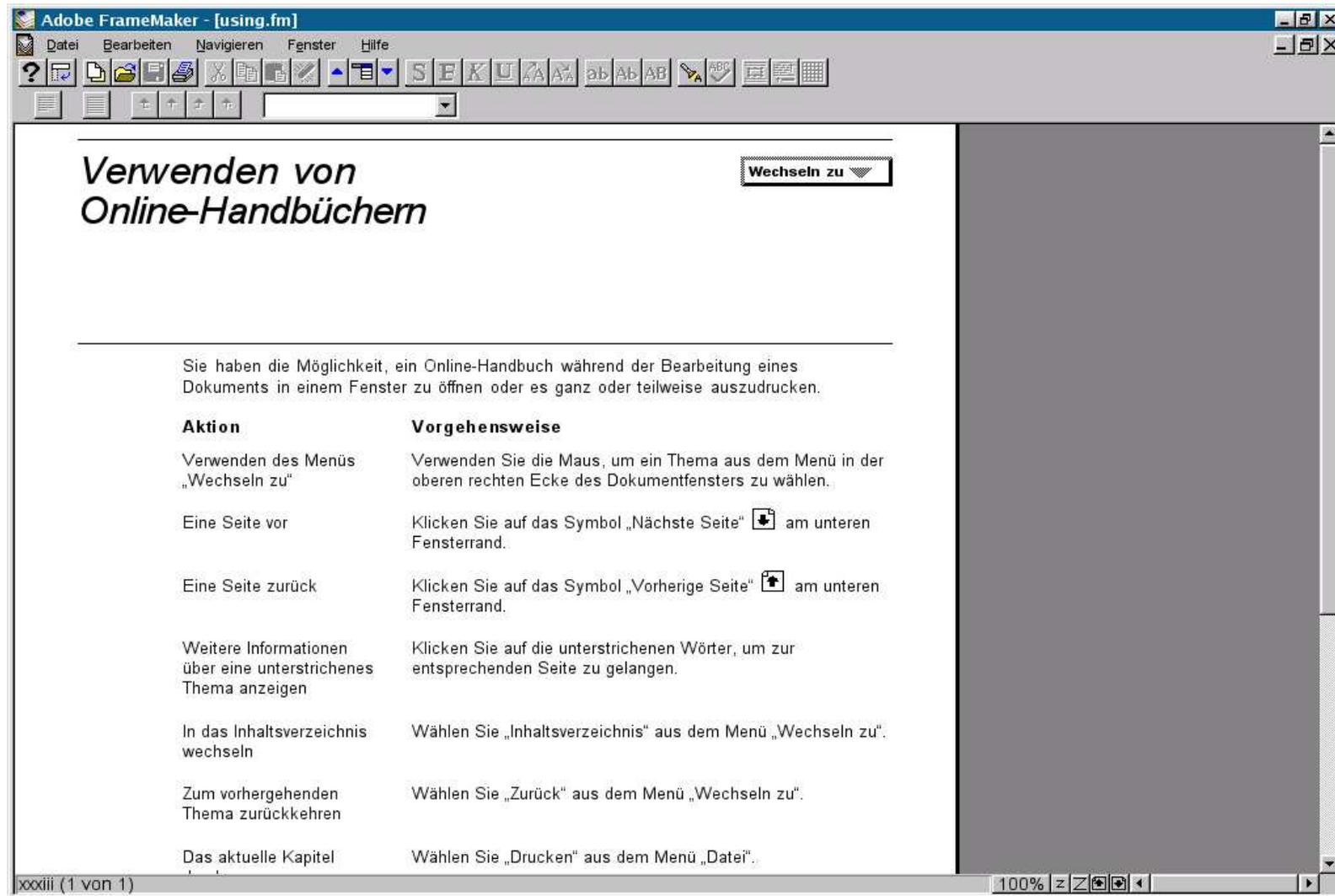
wine (2)

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wine (3)

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wine (4)

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Nützliche Tools

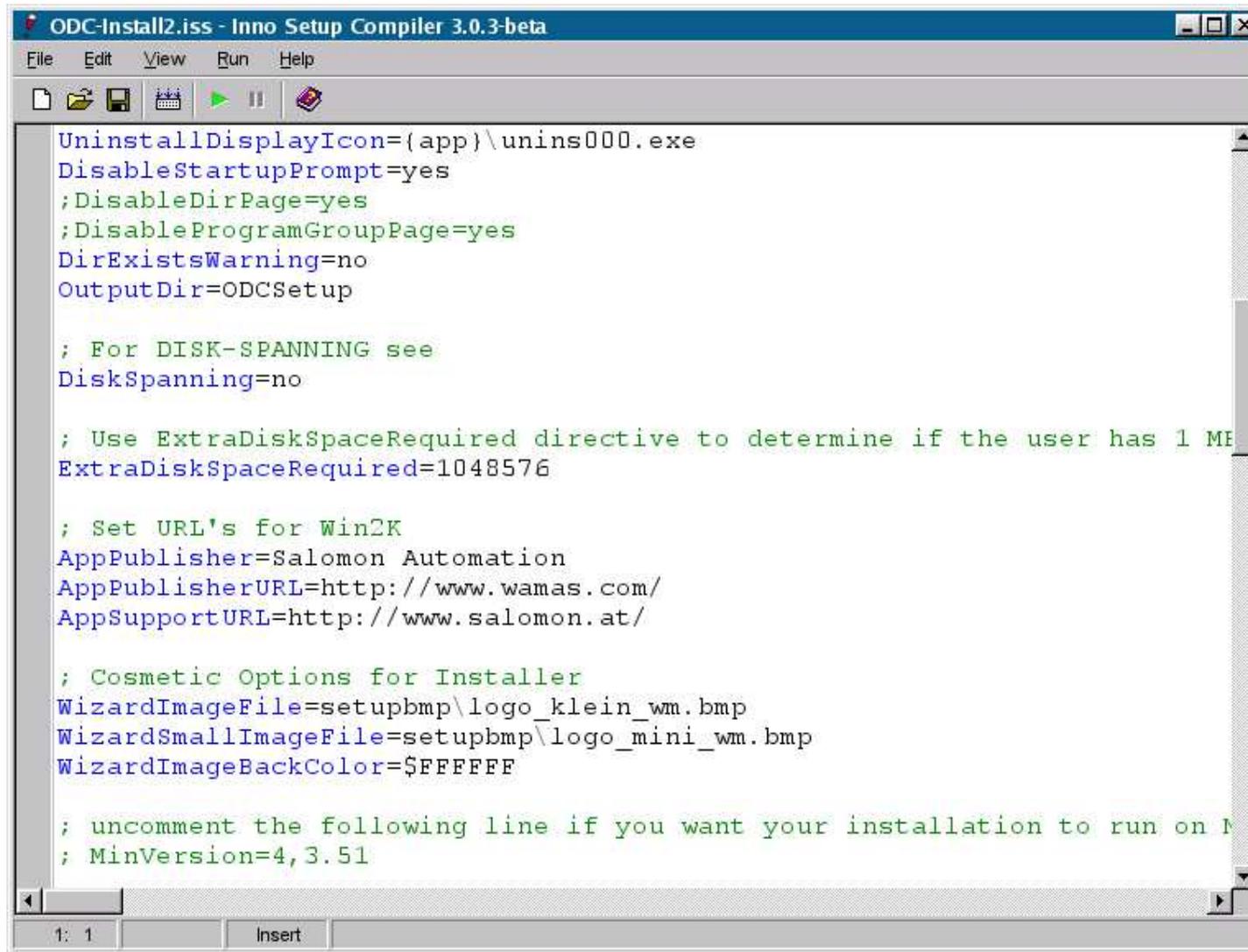
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INNO-Setup-Compiler

- *) Erstellen von Windows Installern
- *) Läuft mit Wine
- *) Legt Icons auf den (KDE-)Desktop
- *) Generierte setup.exe funktionieren auch auf Windows
- *) Scriptfähig (auch mit wine)

Inno-Setup (1)

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```
ODC-Install2.iss - Inno Setup Compiler 3.0.3-beta
File Edit View Run Help
[Icons]
UninstallDisplayIcon={app}\unins000.exe
DisableStartupPrompt=yes
;DisableDirPage=yes
;DisableProgramGroupPage=yes
DirExistsWarning=no
OutputDir=ODCSetup

; For DISK-SPANNING see
DiskSpanning=no

; Use ExtraDiskSpaceRequired directive to determine if the user has 1 MB
ExtraDiskSpaceRequired=1048576

; Set URL's for Win2K
AppPublisher=Salomon Automation
AppPublisherURL=http://www.wamas.com/
AppSupportURL=http://www.salomon.at/

; Cosmetic Options for Installer
WizardImageFile=setupbmp\logo_klein_wm.bmp
WizardSmallImageFile=setupbmp\logo_mini_wm.bmp
WizardImageBackColor=$FFFFFF

; uncomment the following line if you want your installation to run on 1
; MinVersion=4,3.51
```

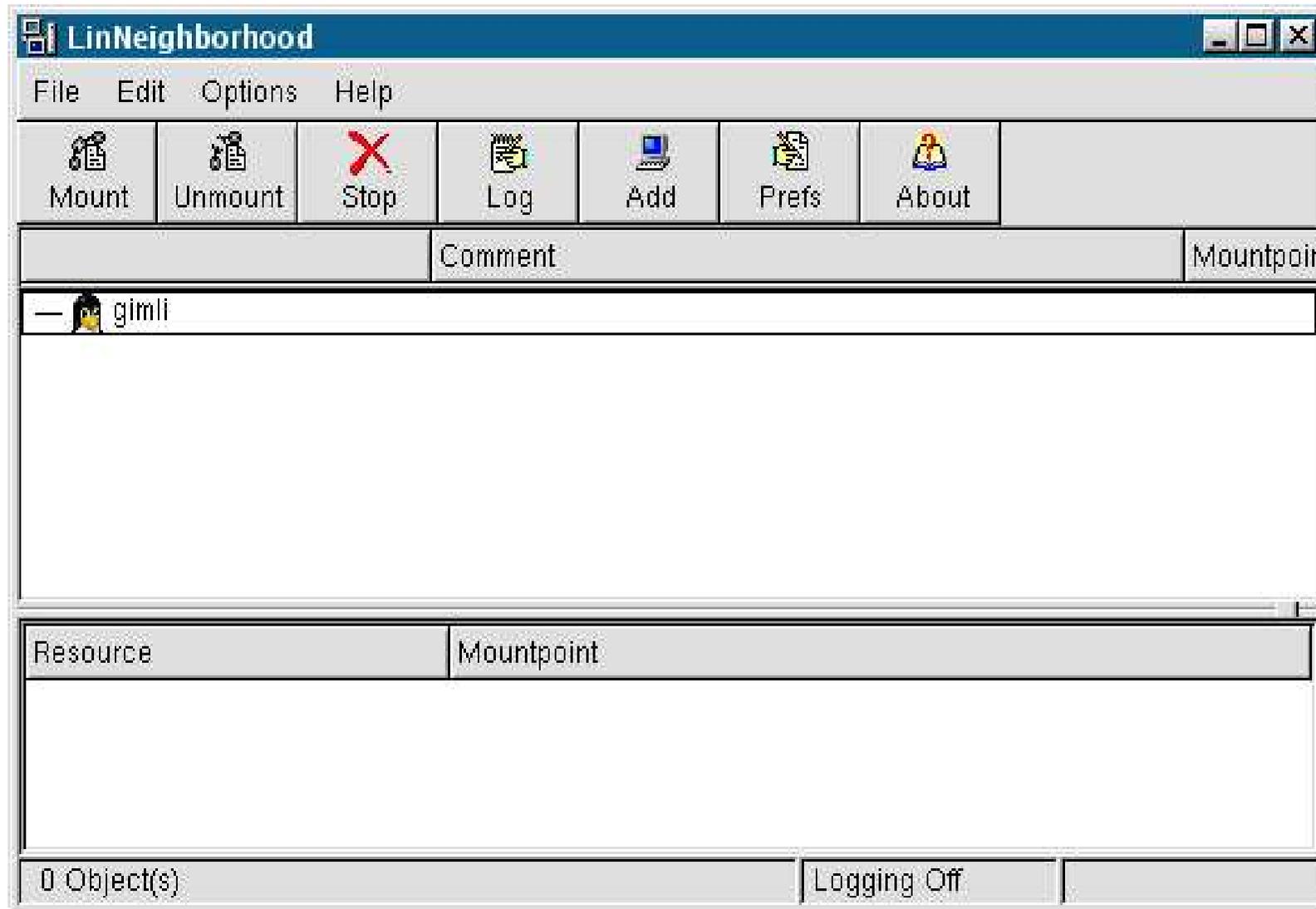
Inno-Setup (2)

LinNeighborhood

- *) Native unter Linux
- *) Zugriff auf Windows Netzwerke mit Klickbunt
- *) Benötigt SAMBA-Client

LinNeighborhood (1)

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LinNeighborhood (1)

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Die Antwort
auf die Frage
lautet also:

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“Na klar, Linux
kann das
auch”

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**Vielen Dank
fürs zuhören!**