

NDBI040: PRACTICAL CLASS 8

SCIDB: SETUP

REQUIRED STEPS

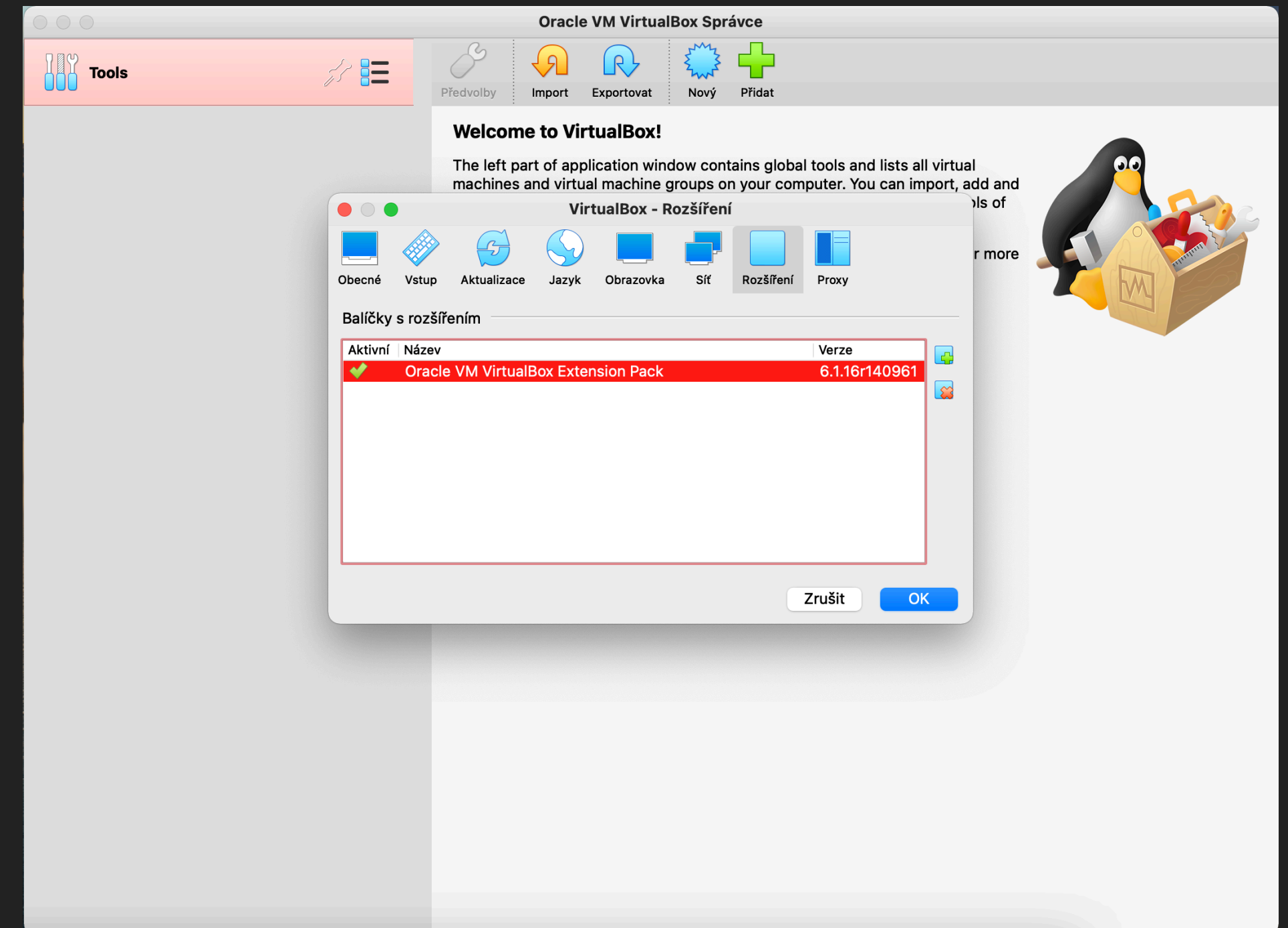
- ▶ It takes 10 min if you already have downloaded image and you know what to do
- ▶ Download and Install (single) Virtualization platform of yours choice
 - ▶ VirtualBox 6.x (including Extension Pack)
 - ▶ VMWare Fusion Player 12.x
 - ▶ VMWare Workstation Player 16.x
- ▶ Download Image
- ▶ Import Image into Virtualization Platform
 - ▶ Check hardware setup of the image to match your hardware setup
 - ▶ Setup port forwarding (voluntary, prerequisite for ssh access)
- ▶ Run Image
 - ▶ Sign In
 - ▶ Start SciDB
- ▶ Use SSH (voluntary)

VIRTUALIZATION PLATFORM

- ▶ Select, download and install single preferred virtualization platform
- ▶ VirtualBox 6.x (macOS / Windows / Linux)
 - ▶ <https://www.virtualbox.org/wiki/Downloads>
 - ▶ Install also Oracle VM VirtualBox Extension Pack
 - ▶ Download on the same page, then add it as an extension

INSTALL EXTENSION PACK

- ▶ Select, download and install single preferred virtualization platform
- ▶ VirtualBox 6.x (macOS / Windows / Linux)
 - ▶ <https://www.virtualbox.org/wiki/Downloads>
 - ▶ Install also Oracle VM VirtualBox Extension Pack
 - ▶ Download on the same page, then add it as an extension

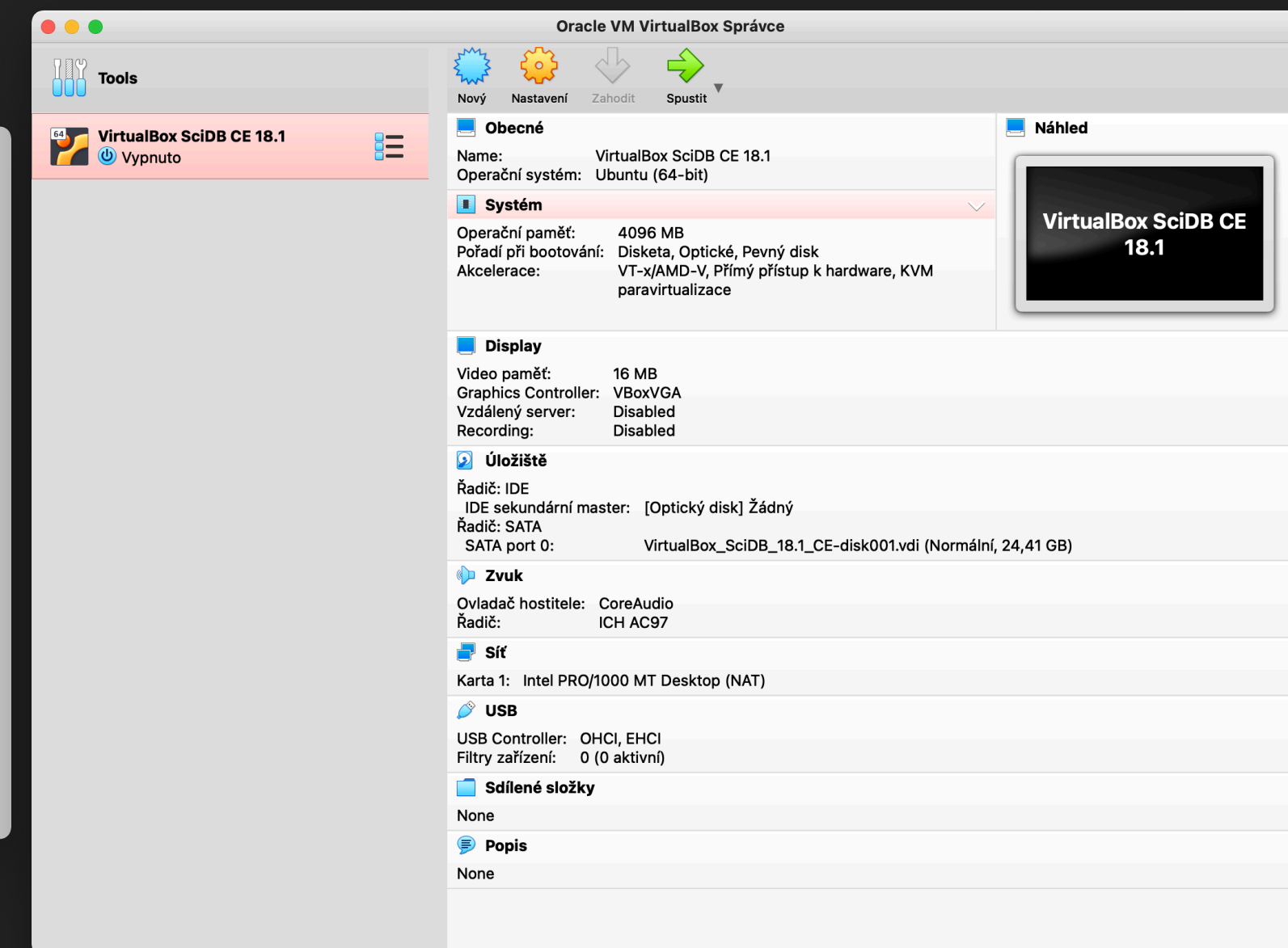
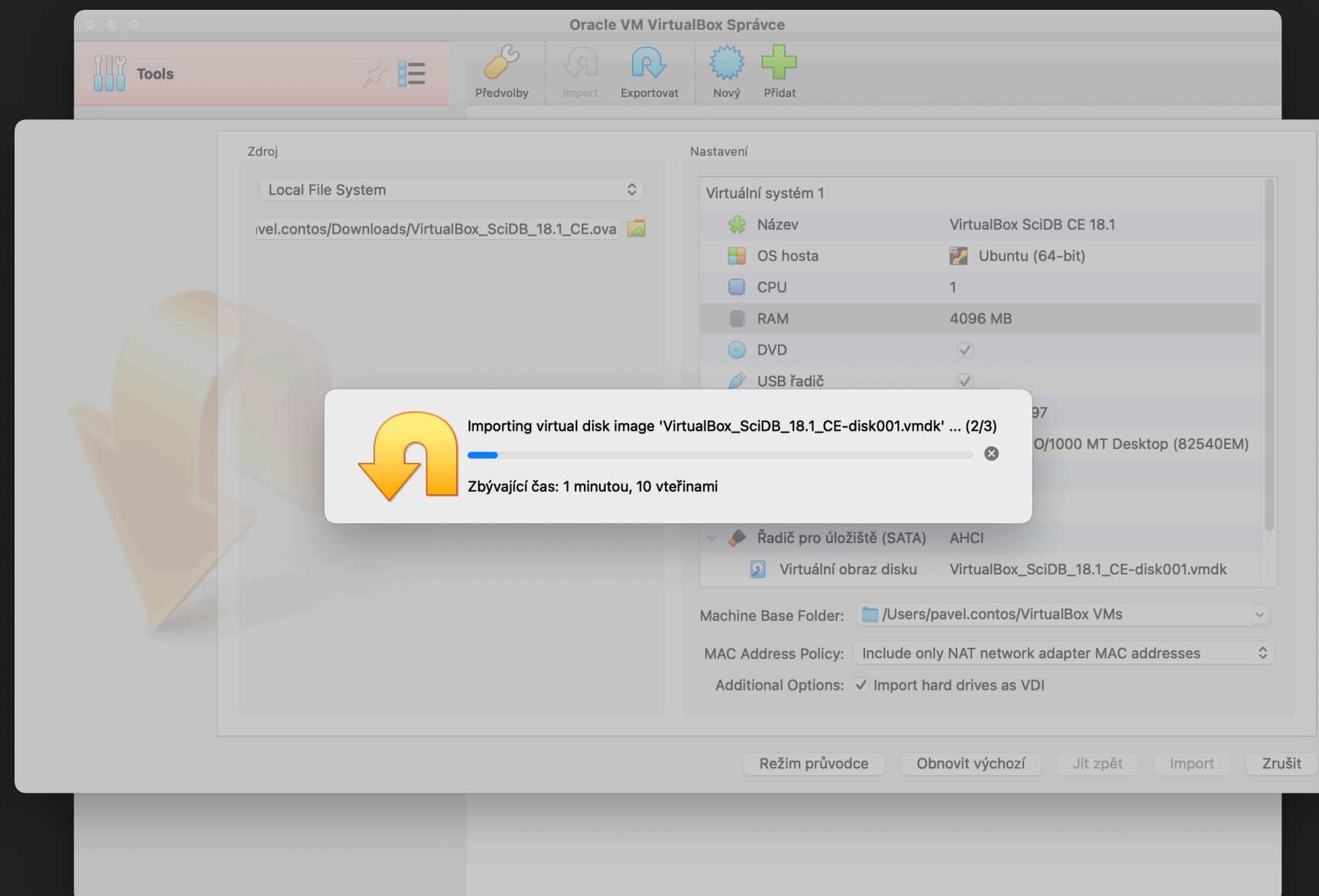
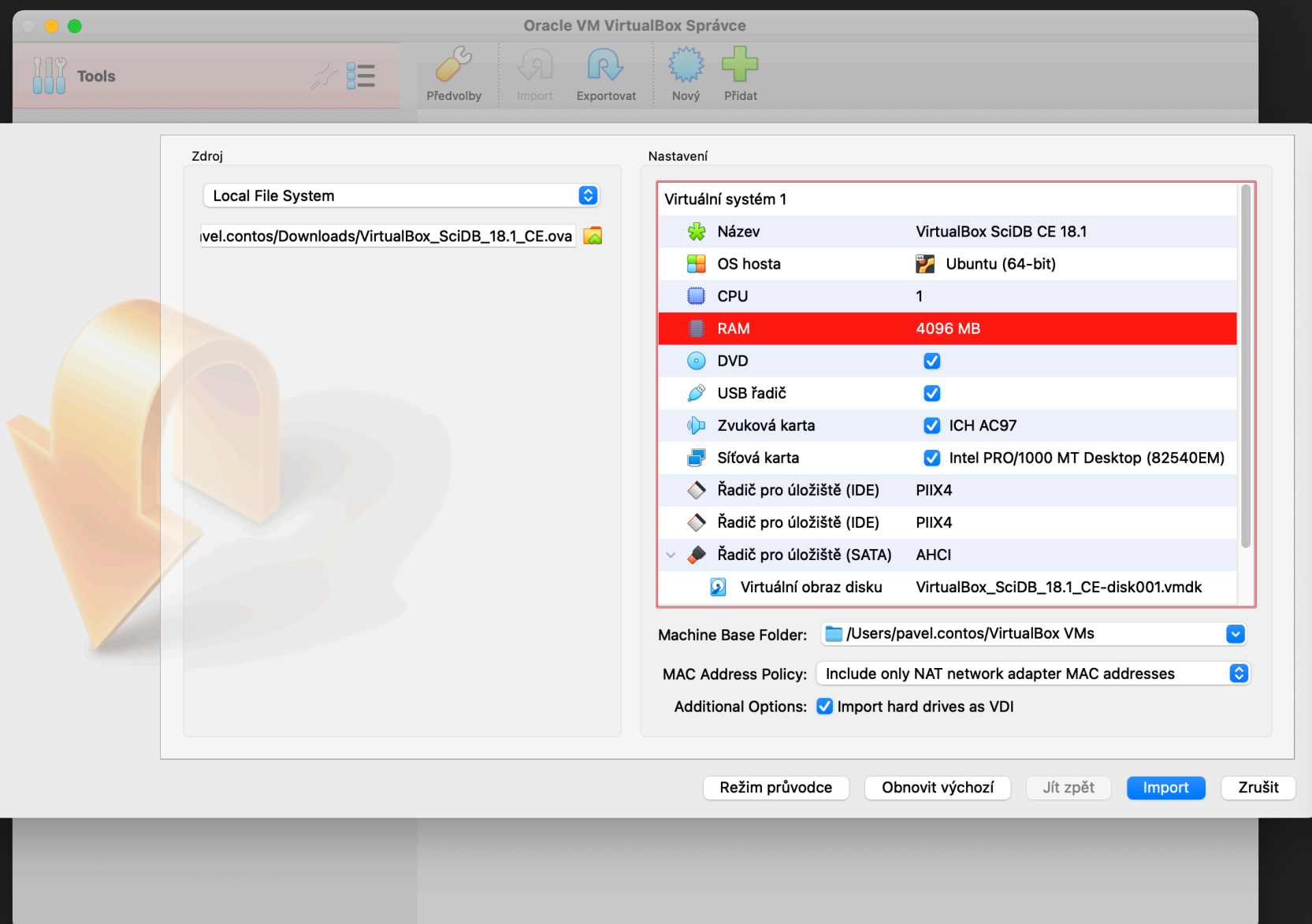


DOWNLOAD IMAGE

- ▶ Download Ubuntu 14.04 + SciDB Image
 - ▶ VirtualBox_SciDB_18.1_CE.ova
 - ▶ Compatible with VirtualBox, VMWare
 - ▶ 6GB
 - ▶ <https://drive.google.com/drive/folders/1ns5l39SVS9OjJM8-ahHKgXOwguSFjjuo>

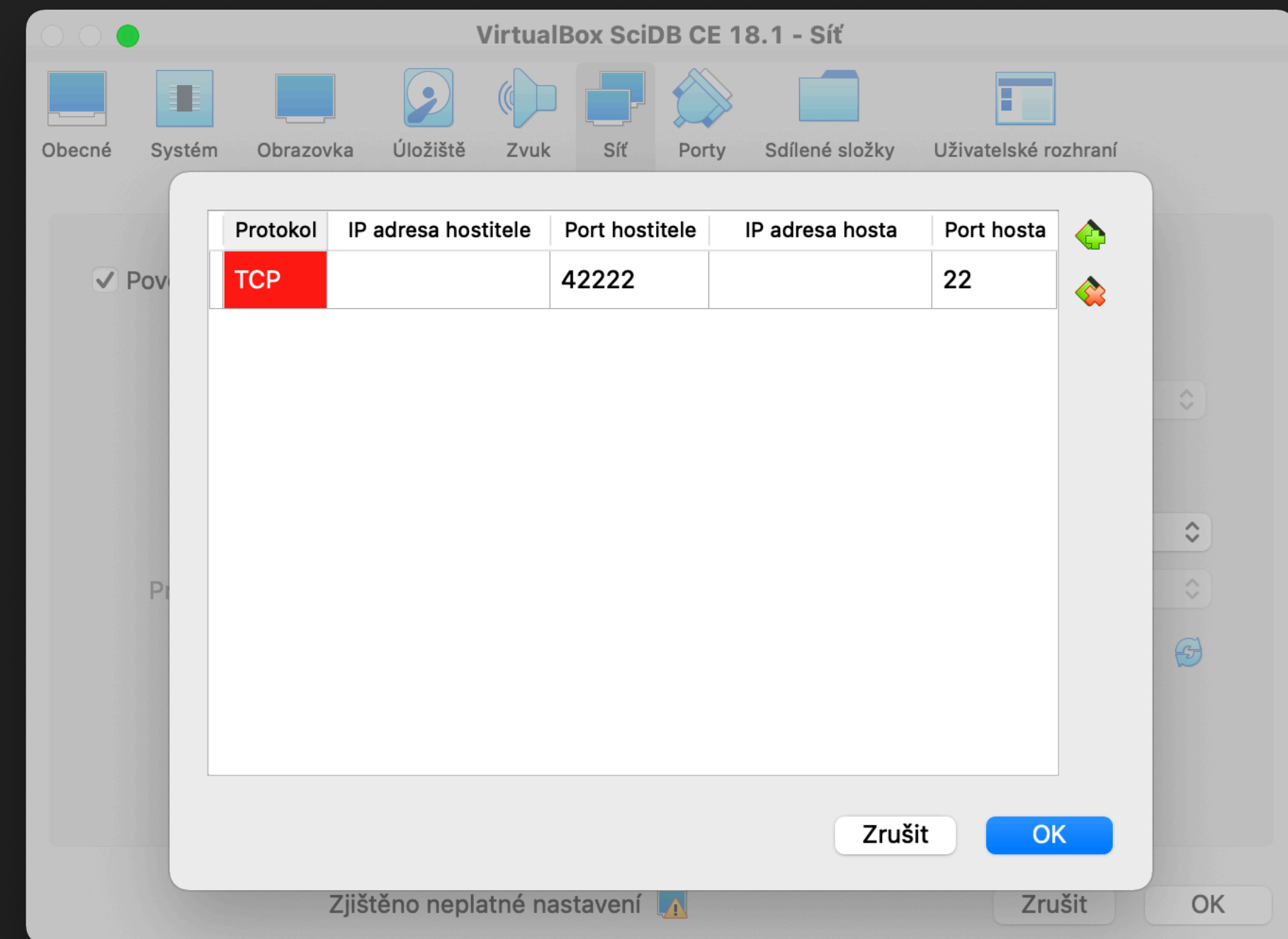
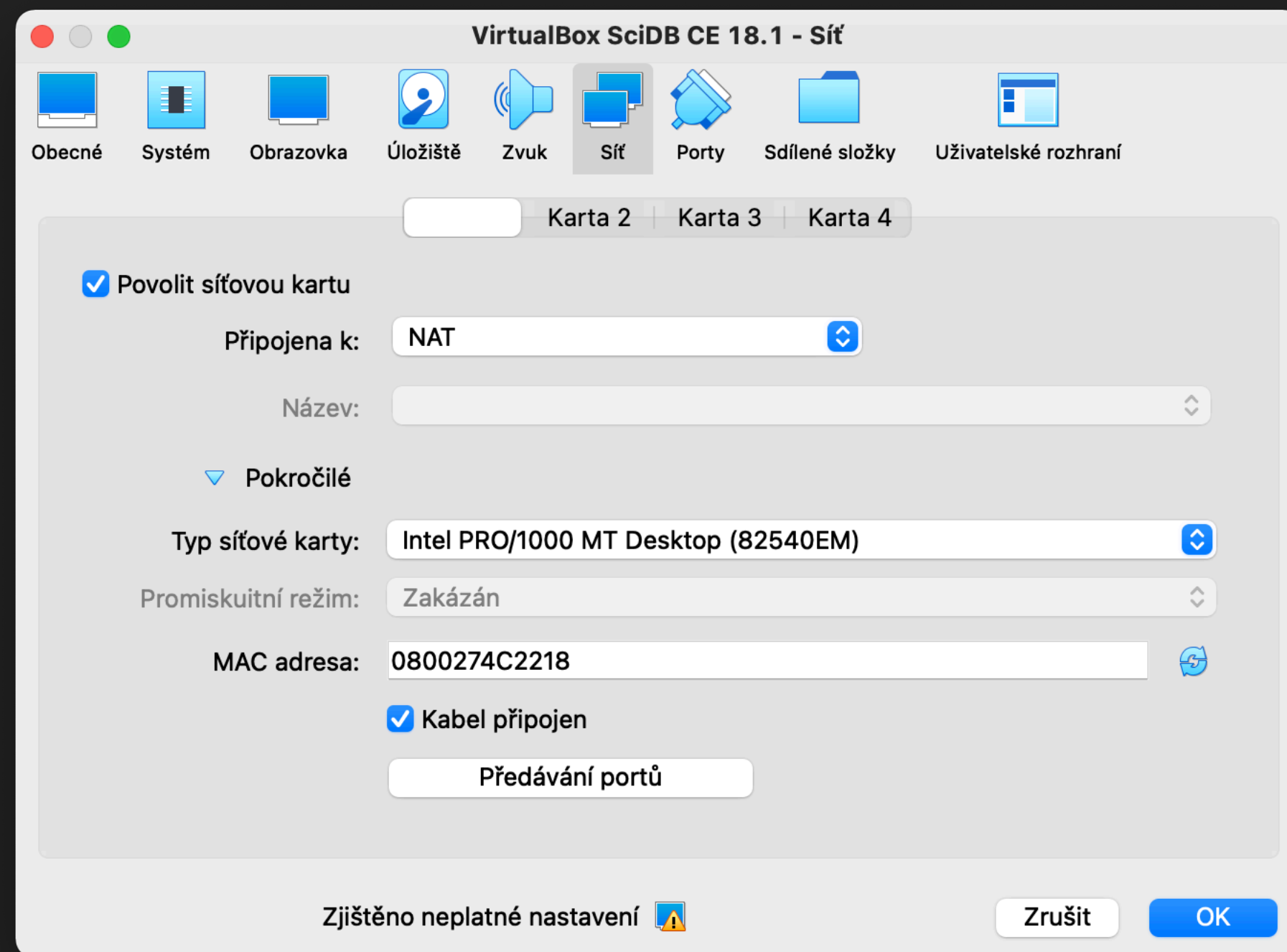
IMPORT IMAGE

- ▶ Import Image into VirtualBox (use expert mode)
- ▶ Check hardware requirements of image to match your hardware setup
- ▶ E.g. lower required RAM to 4 GB



SETUP PORT FORWARDING (VOLUNTARY)

- ▶ Change Network Settings of SciDB Image
 - ▶ Select Extended and Port Forwarding
 - ▶ Protocol: TCP, Host port: 42222 Guest port: 22



RUN IMAGE

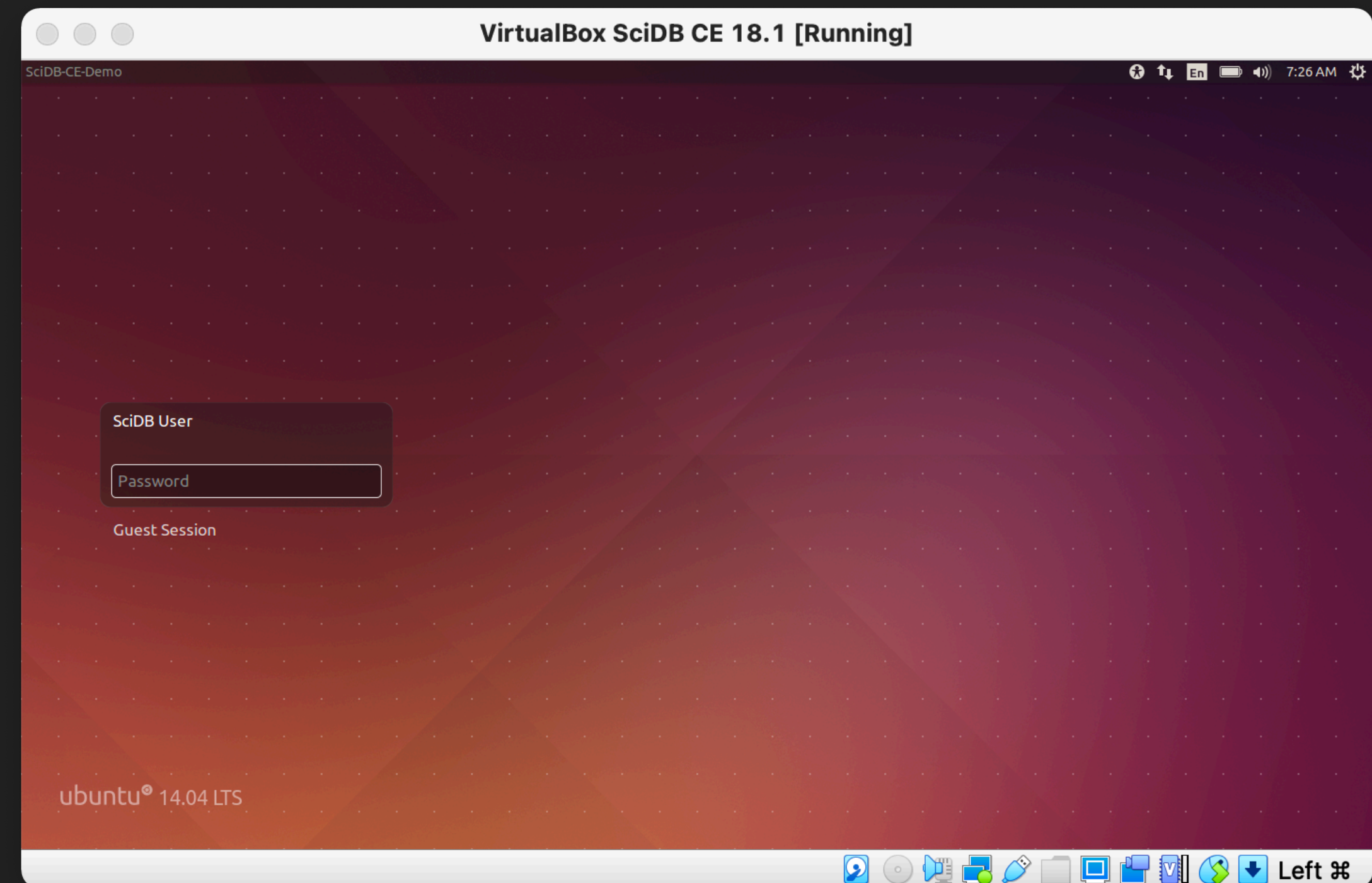
- ▶ Run Image
 - ▶ If any warning appears, proceed

SIGN IN

▶ Sign In

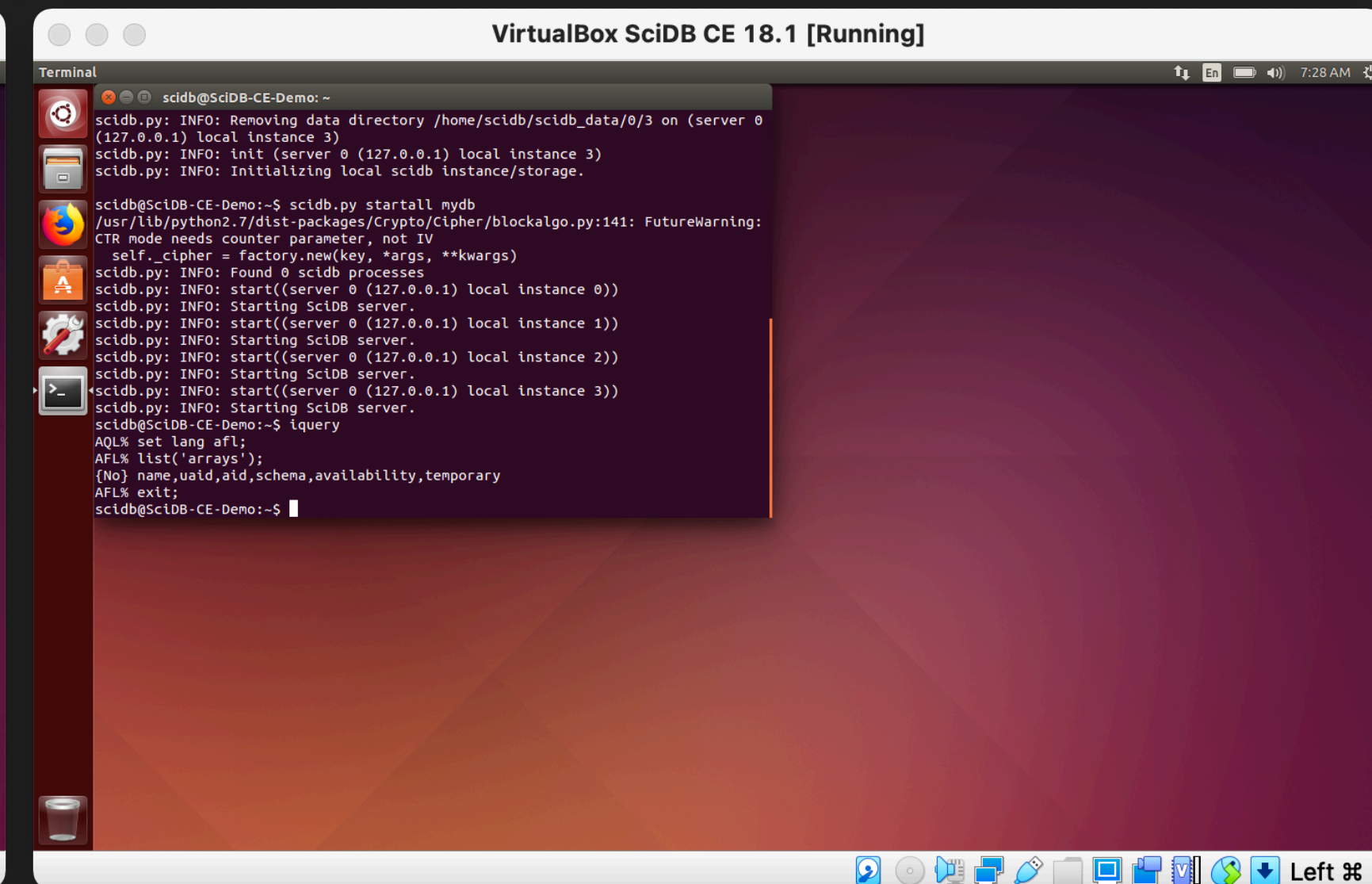
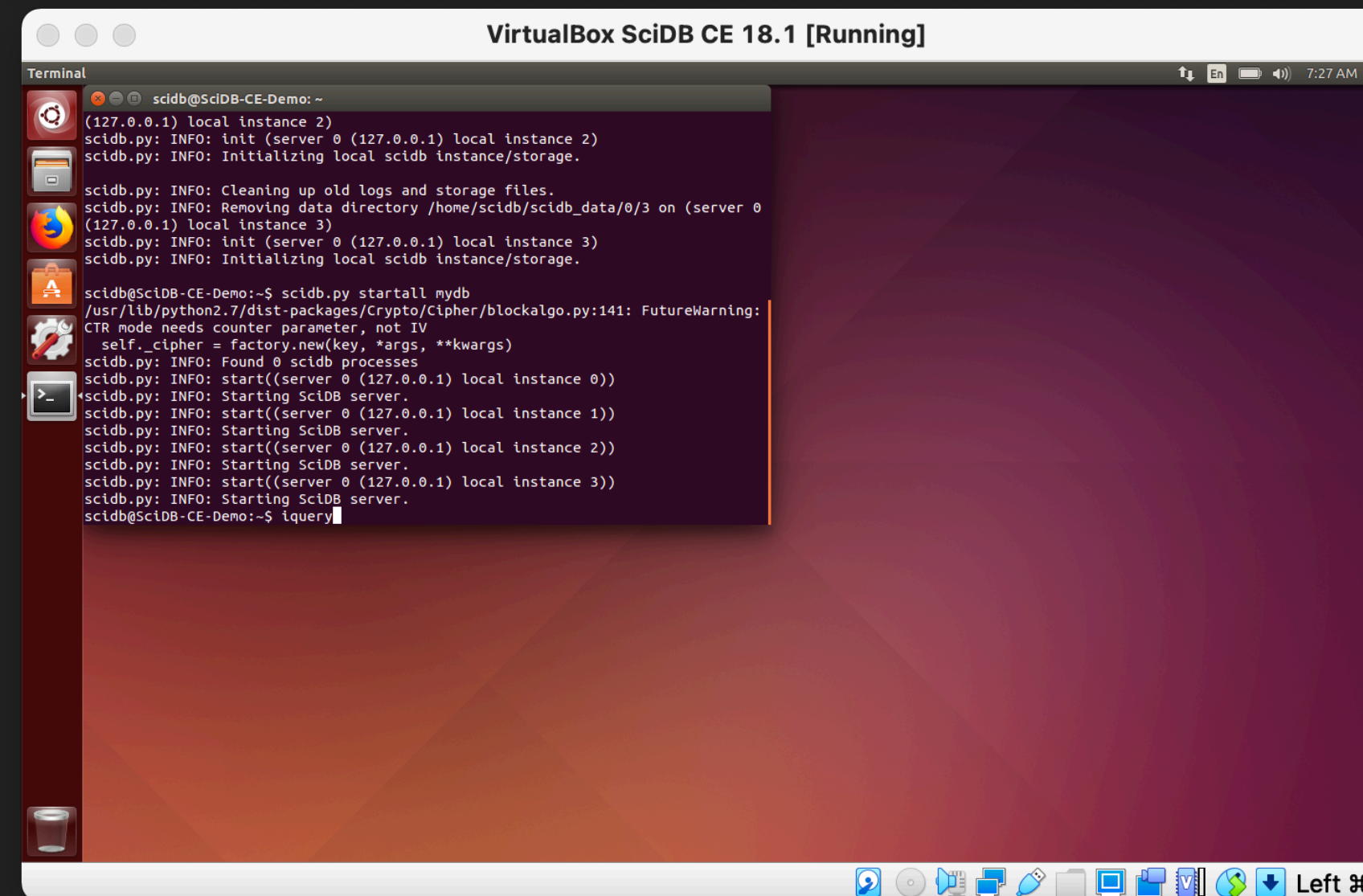
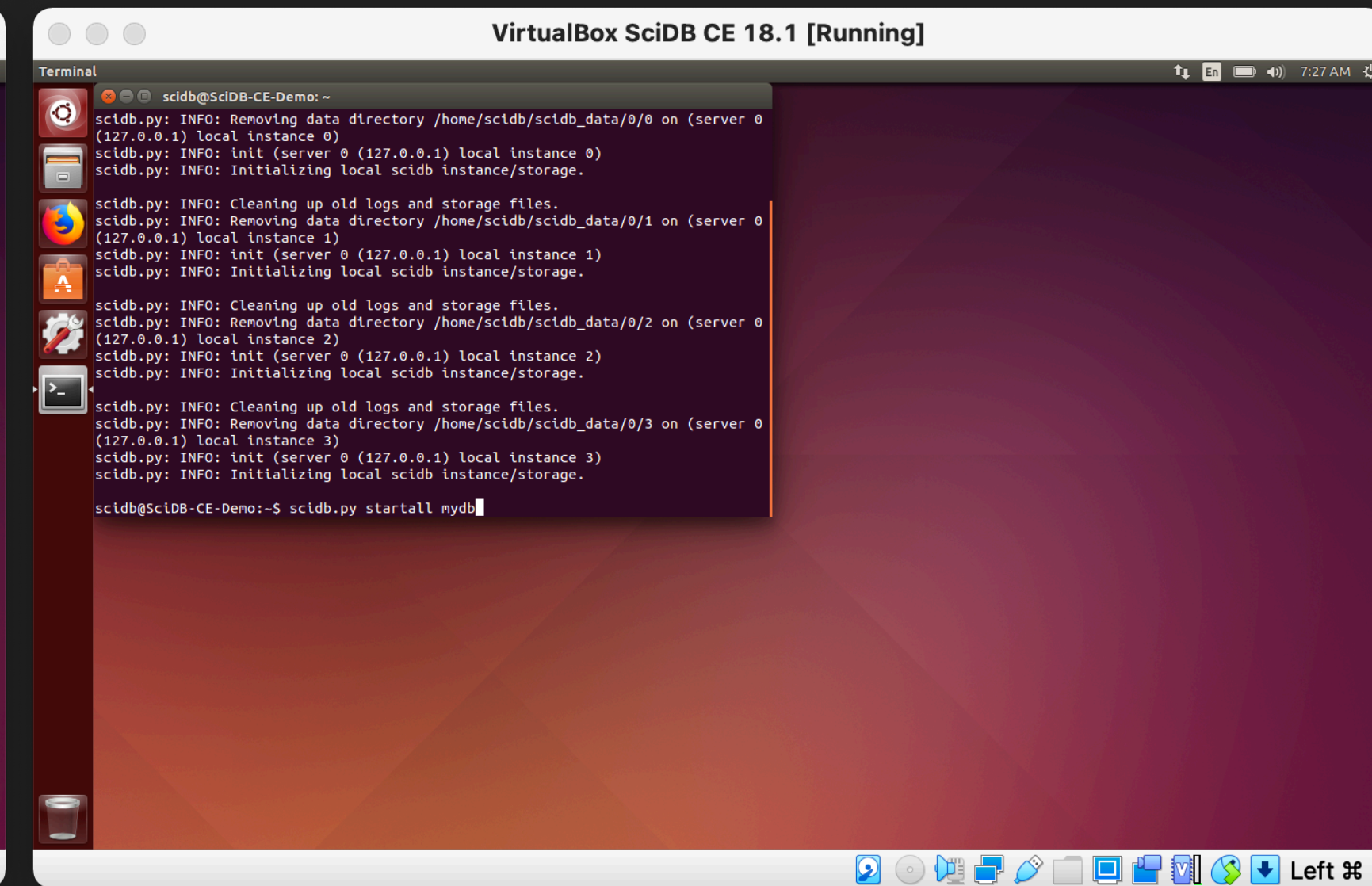
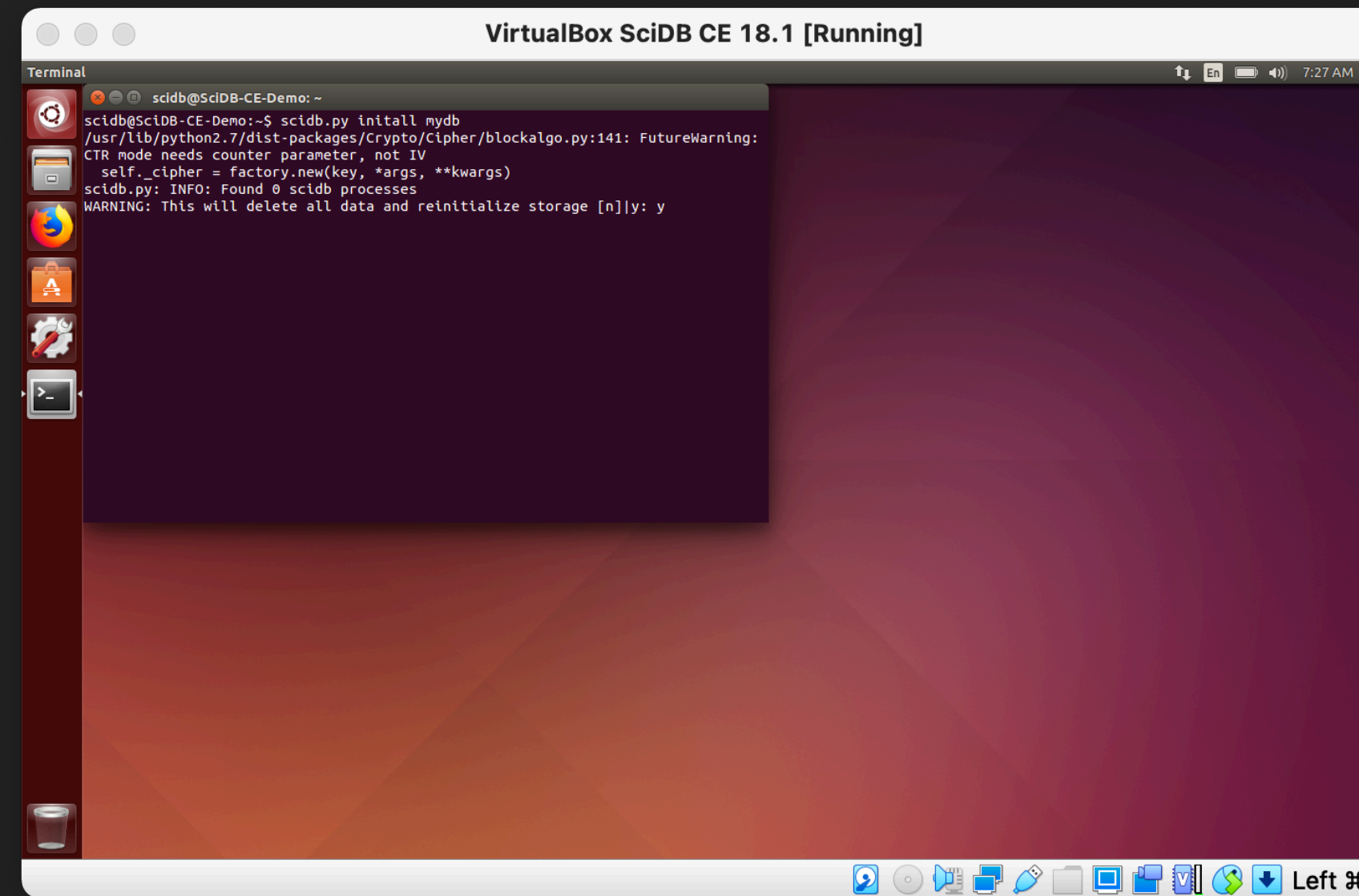
▶ login: scidb

▶ password: paradigm4



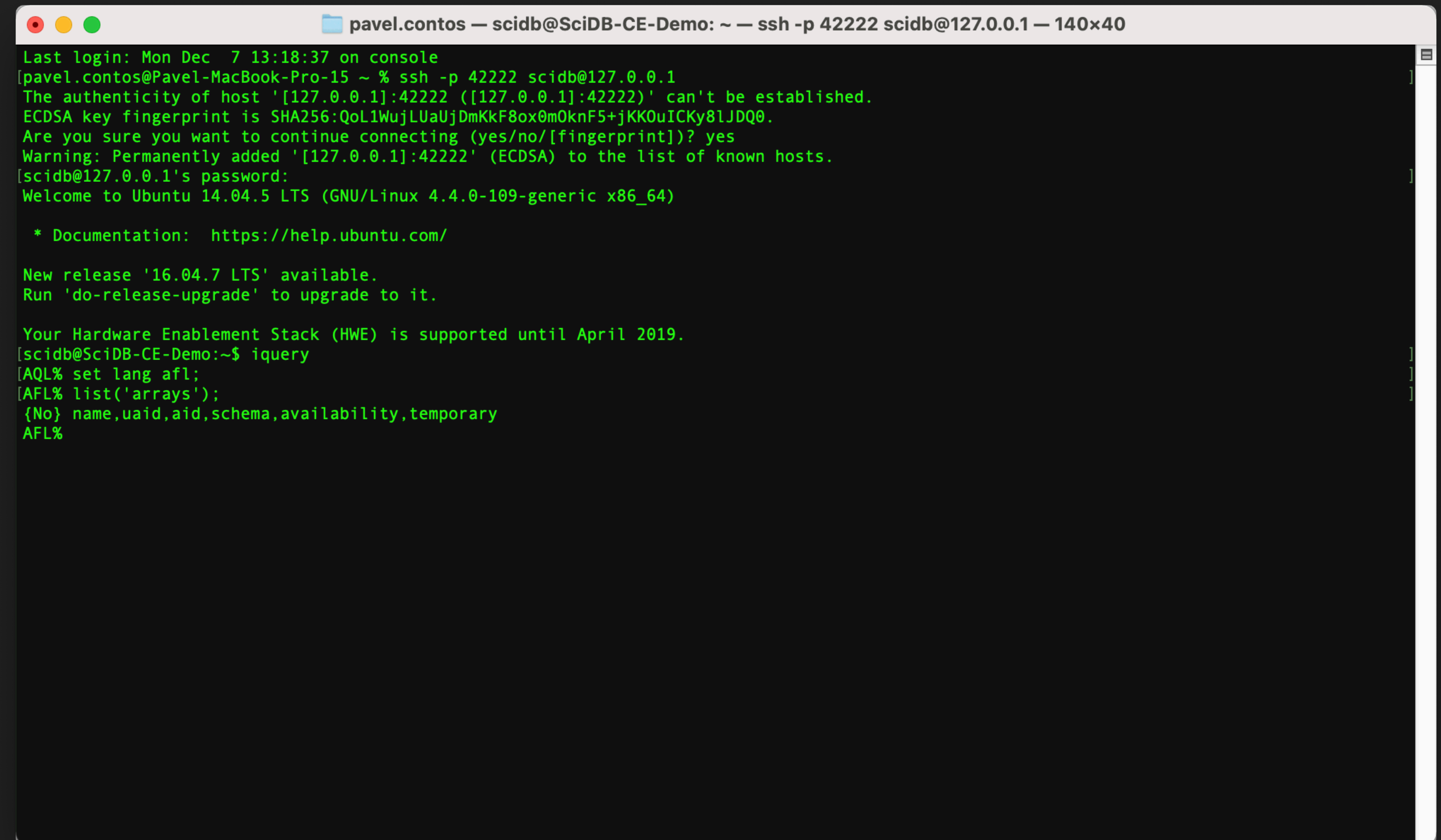
START SCIDB

- ▶ scidb.py initall mydb
- ▶ scidb.py startall mydb
- ▶ iquery
- ▶ set lang afl;
- ▶ list('arrays');
- ▶ exit;



USE SSH

- ▶ Use ssh/scp on host to remote access
- ▶ `ssh -p 42222 scidb@127.0.0.1`

A terminal window titled "pavel.contos — scidb@SciDB-CE-Demo: ~ — ssh -p 42222 scidb@127.0.0.1 — 140x40". The terminal shows the execution of the command `ssh -p 42222 scidb@127.0.0.1`. It displays the last login time, the host's authenticity warning, the ECDSA key fingerprint, and the user's confirmation to continue. After entering the password, the user is logged into the remote host as 'scidb' on 'Ubuntu 14.04.5 LTS'. The terminal shows the user running `iquery` and `list('arrays')` in the AFL environment.

```
pavel.contos — scidb@SciDB-CE-Demo: ~ — ssh -p 42222 scidb@127.0.0.1 — 140x40
Last login: Mon Dec  7 13:18:37 on console
[pavel.contos@Pavel-MacBook-Pro-15 ~ % ssh -p 42222 scidb@127.0.0.1
The authenticity of host '[127.0.0.1]:42222 ([127.0.0.1]:42222)' can't be established.
ECDSA key fingerprint is SHA256:QoL1WujLUaUjDmKkF8ox0m0knF5+jKK0uICKy8lJDQ0.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '[127.0.0.1]:42222' (ECDSA) to the list of known hosts.
[scidb@127.0.0.1's password:
Welcome to Ubuntu 14.04.5 LTS (GNU/Linux 4.4.0-109-generic x86_64)

 * Documentation:  https://help.ubuntu.com/

New release '16.04.7 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Your Hardware Enablement Stack (HWE) is supported until April 2019.
[scidb@SciDB-CE-Demo:~$ iquery
[AFL% set lang afl;
[AFL% list('arrays');
{No} name,uaid,aid,schema,availability,temporary
[AFL%
```

REFERENCES

- ▶ VirtualBox Manual
 - ▶ <https://www.virtualbox.org/manual/>
- ▶ VMWare Fusion Player Manual
 - ▶ <https://docs.vmware.com/en/VMware-Fusion/index.html>
- ▶ VMWare Workstation Player Manual
 - ▶ https://www.vmware.com/pdf/ws7_manual.pdf
- ▶ SciDB Reference Manual
 - ▶ <https://paradigm4.atlassian.net/wiki/spaces/scidb/overview>
- ▶ SciDB Repository
 - ▶ <https://github.com/Paradigm4/SciDB>