



Dokumentation LB1 (Modul 300)

«Toolumgebung einrichten»

i

Datei-Name:	MBL_180910_Installations-Dokumentation.docx	Titel:	LB1 Dokumentation
Autor:	Michael Blickenstorfer	Anzahl Seiten:	21
Letzte Änderung:	11.09.2018 01:08:00		

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2. GitHub Account

Account erstellen

Repository erstellen

Learn Git and GitHub without any code!

Using the Hello World guide, you'll create a repository, start a branch, write comments, and open a pull request.

[Read the guide](#)

[Start a project](#)

Create a new repository

A repository contains all the files for your project, including the revision history.

Owner Repository name

Great repository names are short and memorable. Need inspiration? How about [improved-happiness](#).

Description (optional)

Public

Anyone can see this repository. You choose who can commit.

Private

You choose who can see and commit to this repository.

Initialize this repository with a README

This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

TacoTaco47 / M300

Code Issues 0 Pull requests 0 Projects 0 Wiki Insights Settings

No description, website, or topics provided. [Edit](#)

Add topics

1 commit 1 branch 0 releases 1 contributor

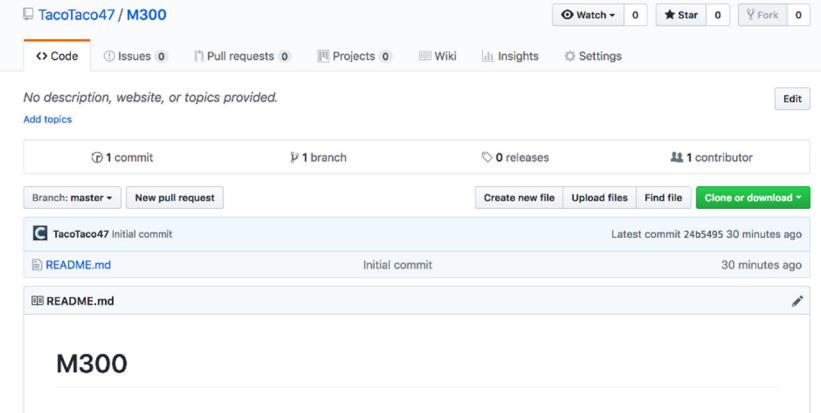
Branch: master New pull request Create new file Upload files Find file Clone or download

TacoTaco47 Initial commit Latest commit 24b5495 30 minutes ago

README.md Initial commit 30 minutes ago

README.md

M300



SSH-Key erstellen (lokal)

```
Michaels-MBP:web taco_naco$ cd /  
Michaels-MBP:/ taco_naco$ git config --global user.name "TacoNaco47"  
Michaels-MBP:/ taco_naco$ git config --global user.email "michael.blickenstorfer@outlook.com"  
[Michaels-MBP:/ taco_naco$]  
  
ssh-keygen -t rsa -b 4096 -C "michael.blickenstorfer@outlook.com"
```

SSH-Key dem SSH-Agent hinzufügen

SSH-Key einfügen

3. Git Cleint

Client installieren

Installation unter Mac OS X

Auf einem Mac kann man Git auf zwei Arten installieren. Der einfachste ist, das grafische Git Installationsprogramm zu verwenden, den man von der SourceForge Webseite herunterladen kann (siehe Bild 1-7)

<http://sourceforge.net/projects/git-osx-installer/>

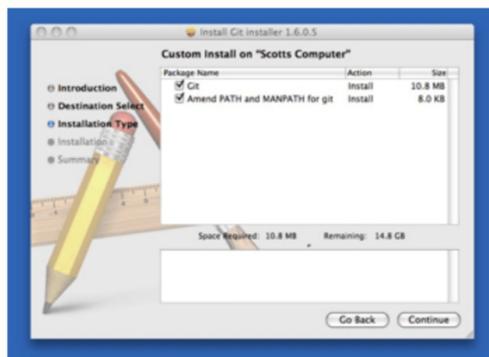
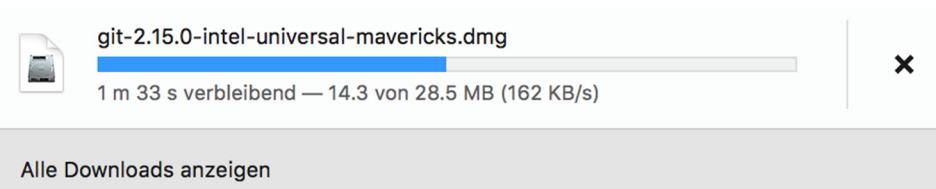
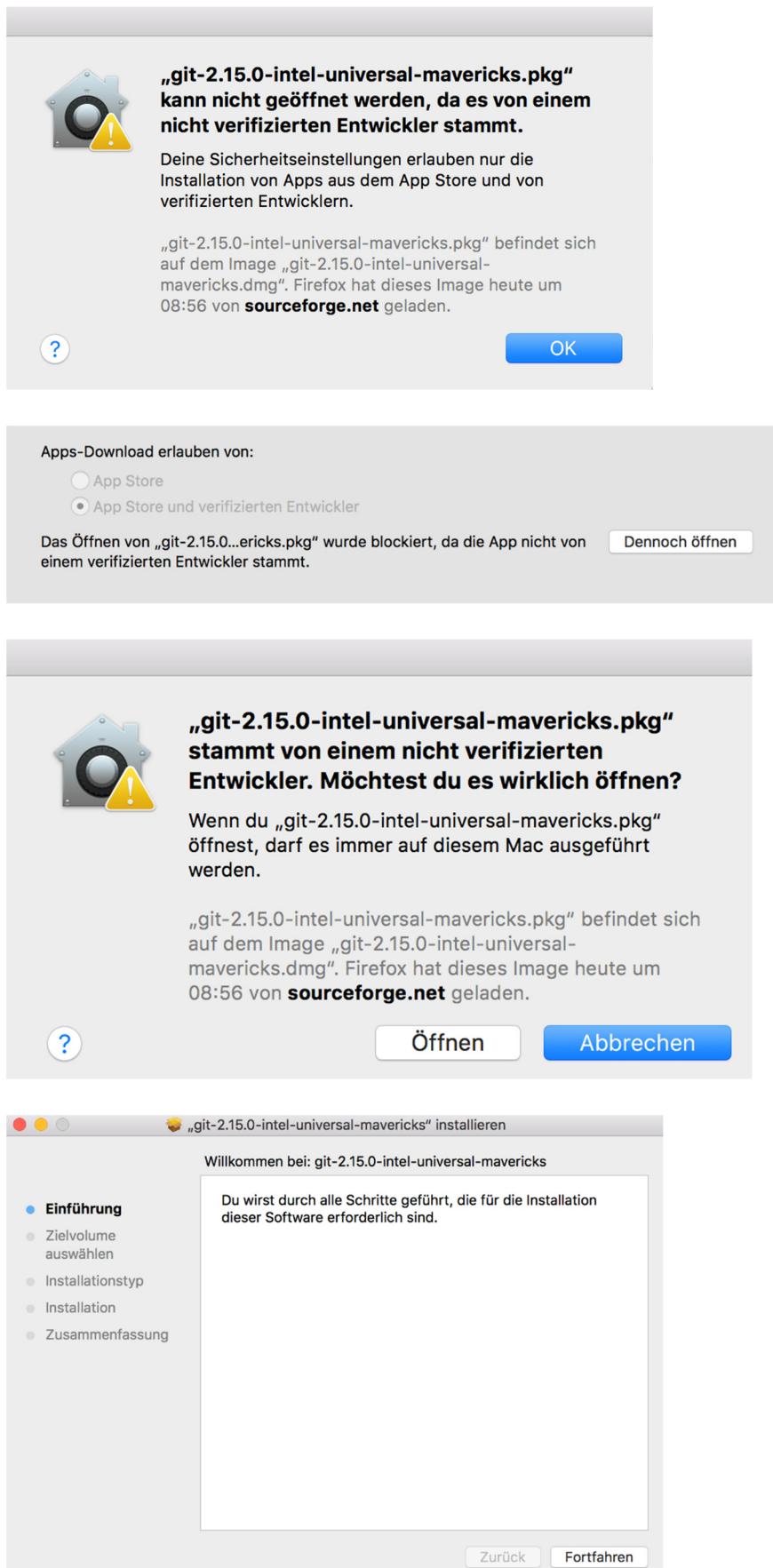
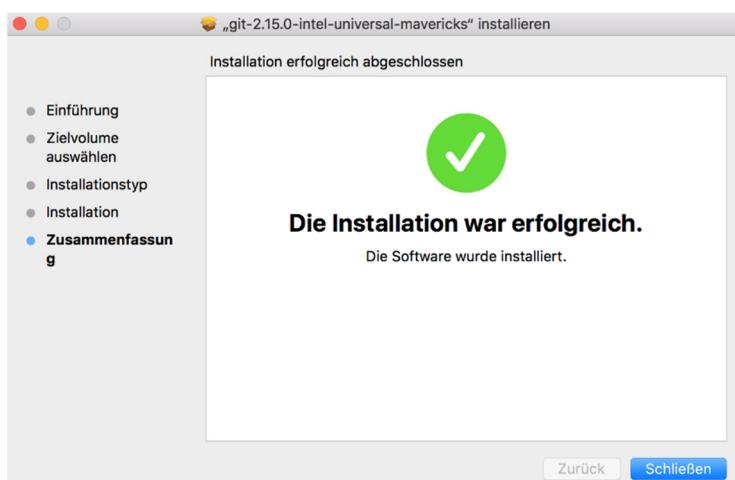
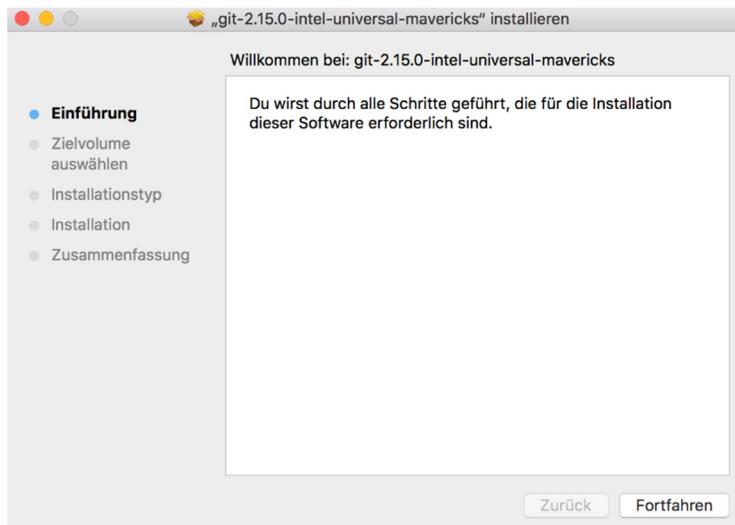


Bild 1-7. Git OS X Installationsprogramm







Client konfigurieren

```
Michaels-MBP:web taco_naco$ cd /  
Michaels-MBP:/ taco_naco$ git config --global user.name "TacoNaco47"  
Michaels-MBP:/ taco_naco$ git config --global user.email "michael.blickenstorfer@outlook.com"  
[Michaels-MBP:/ taco_naco$ ]
```

Repository klonen

```
Michaels-MBP:devops taco_naco$ cd devops
```

Repository herunterladen & aktualisieren (Clone/Pull)

```
Michaels-MBP:devops taco_naco$ git pull  
Already up to date.  
Michaels-MBP:devops taco_naco$ ]
```

```
[Michaels-MBP:devops taco_naco$ git status
On branch master
Your branch is up to date with 'origin/master'.

nothing to commit, working tree clean
Michaels-MBP:devops taco_naco$ ]
```

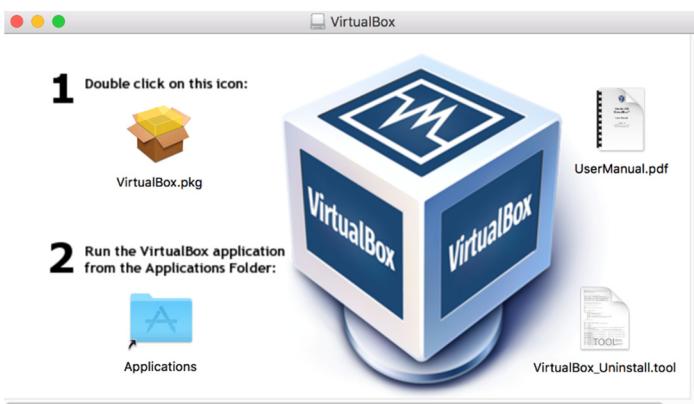
Repository hochladen (Push)

Übersicht «How to Push»

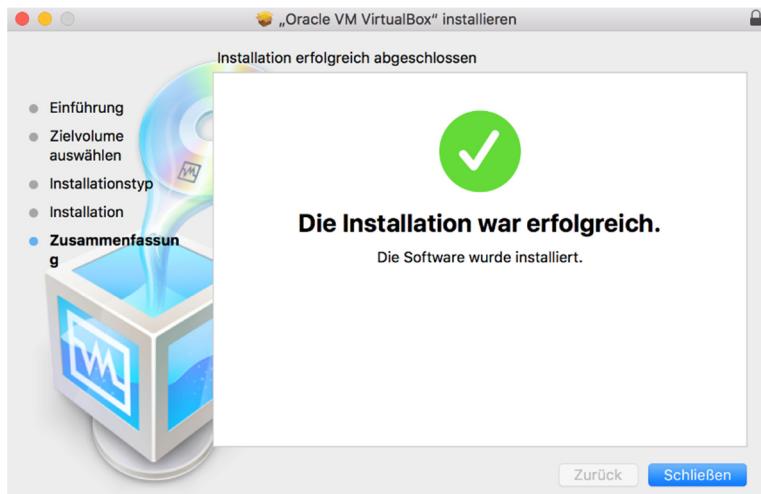
4. VirtualBox

Software herunterladen & installieren

Download VirtualBox 5.2





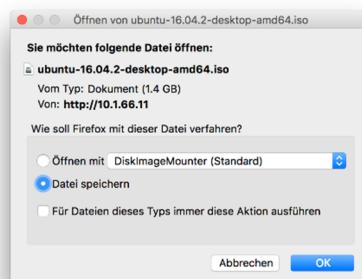


ISO-Datei herunterladen

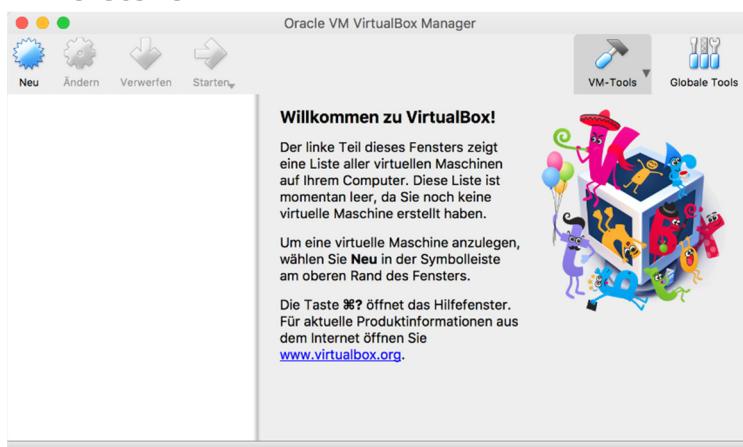
Index of /cd-mirror

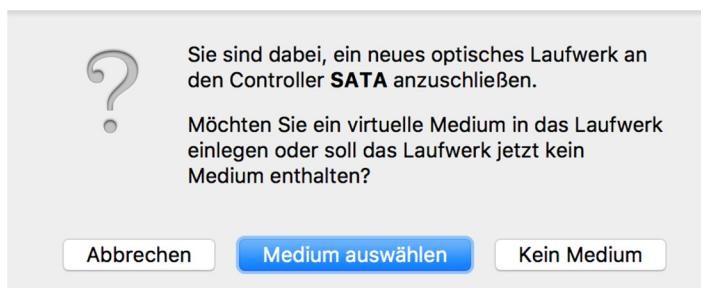
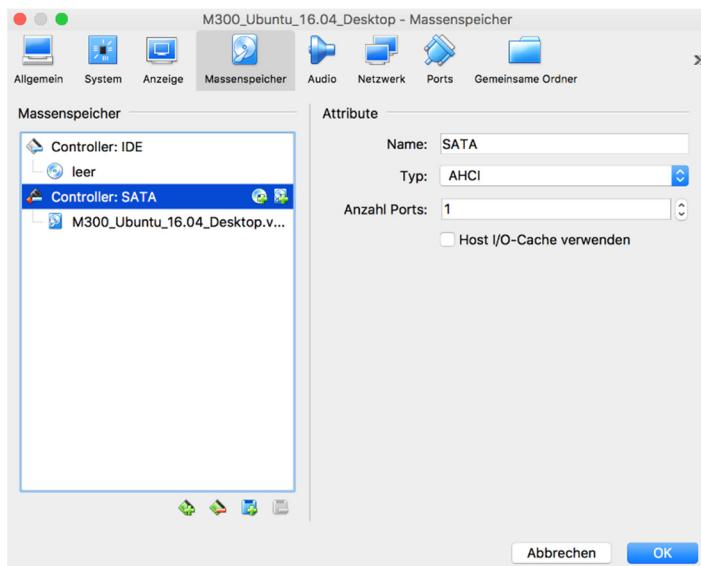
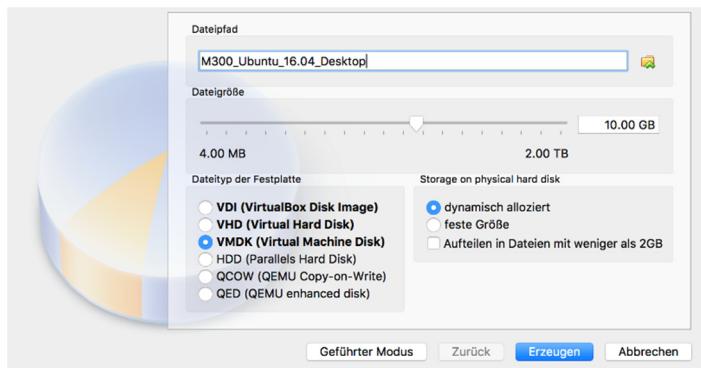
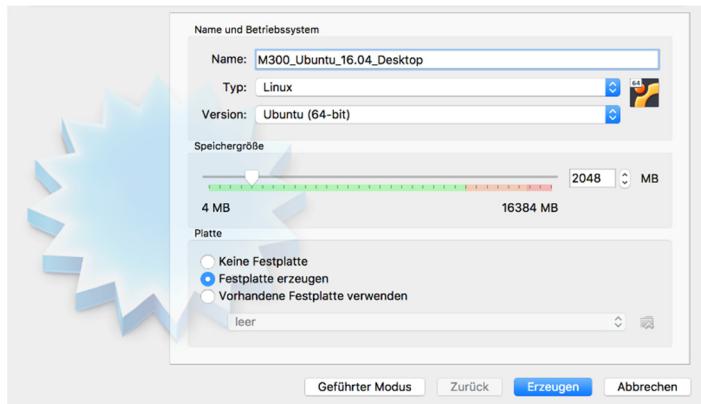
Name	Last modified	Size	Description
Parent Directory		-	
Fedora-Server-dvd-x86_64-25-1.3.iso	2016-11-15 20:04	1.9G	
Fedora-Workstation-Live-x86_64-25-1.3.iso	2016-11-15 22:23	1.3G	
debian-8.8.0-amd64-CD-1.iso	2017-05-06 15:35	630M	
debian-8.8.0-amd64-DVD-1.iso	2017-05-06 15:26	3.7G	
ubuntu-16.04.2-desktop-amd64.iso	2017-02-15 21:44	1.4G	
ubuntu-16.04.2-server-amd64.iso	2017-02-15 20:37	829M	

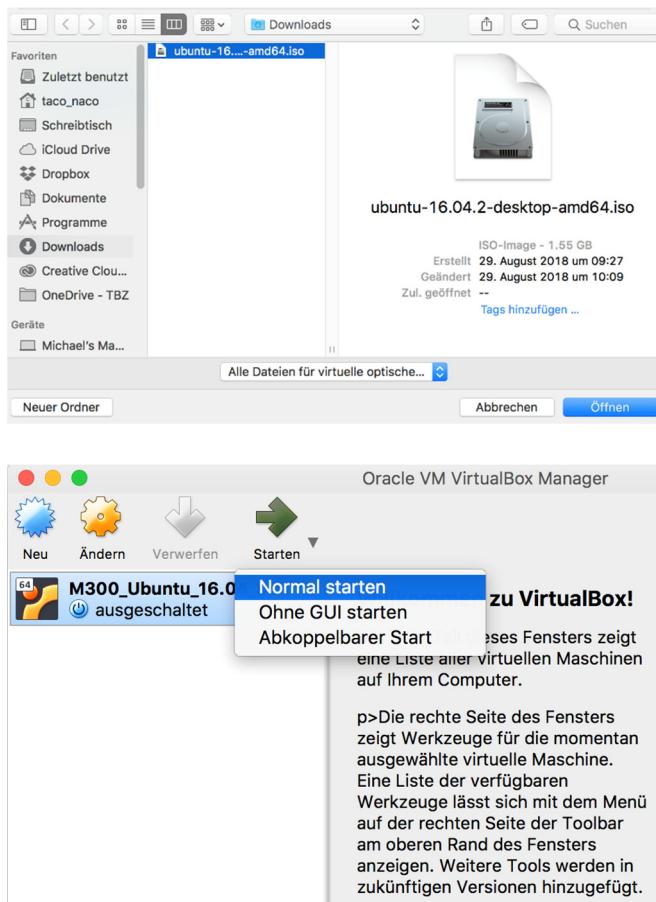
Apache/2.4.18 (Ubuntu) Server at 10.1.66.11 Port 80



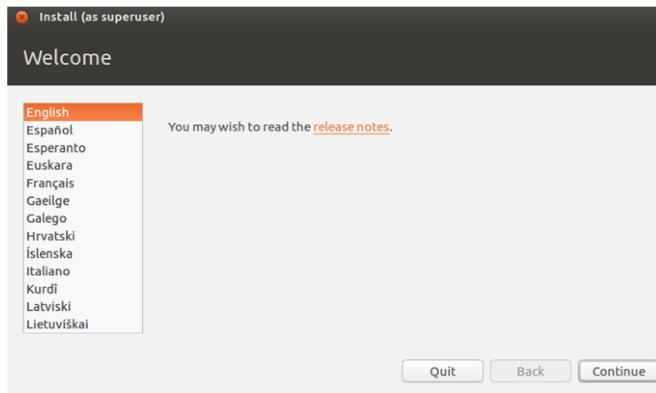
VM erstellen

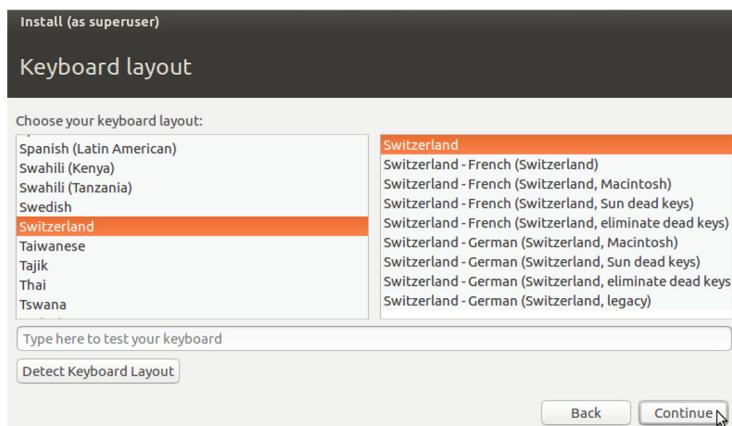
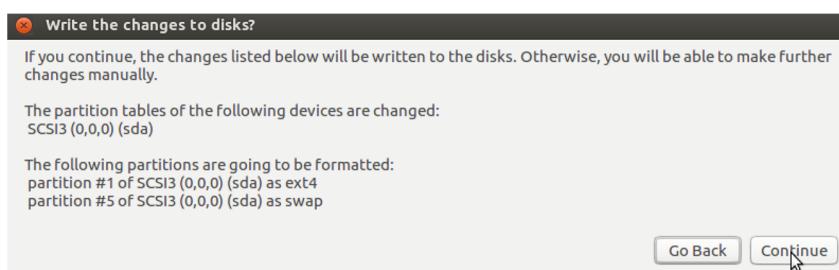
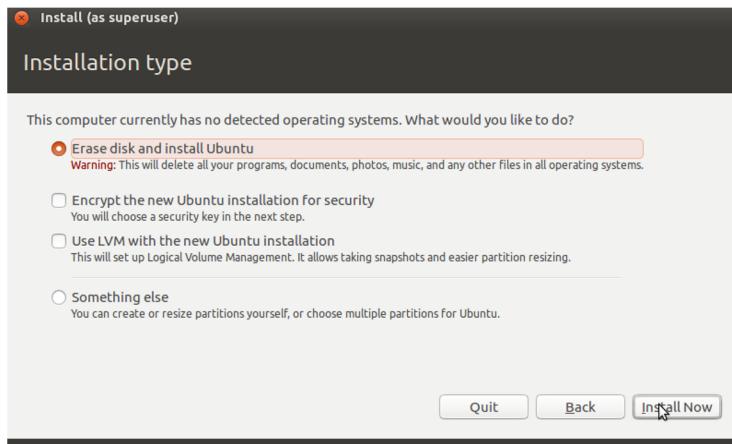


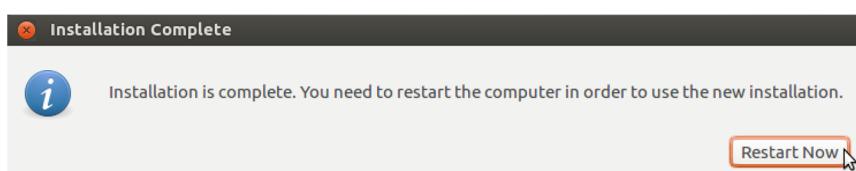
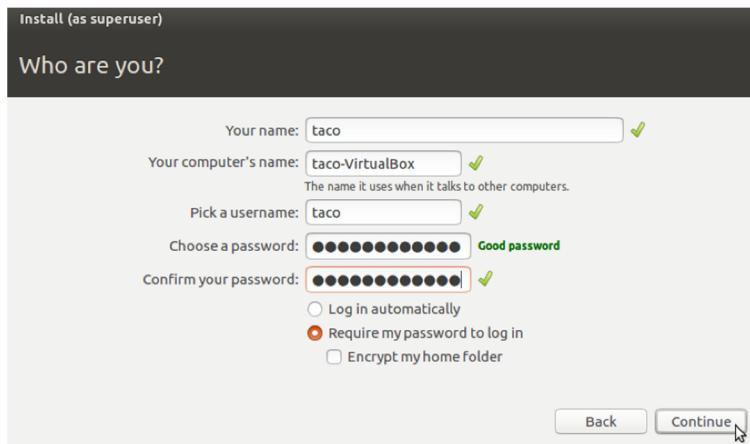




VM einrichten







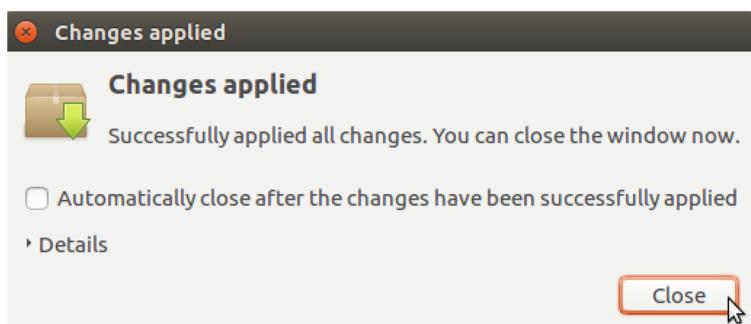
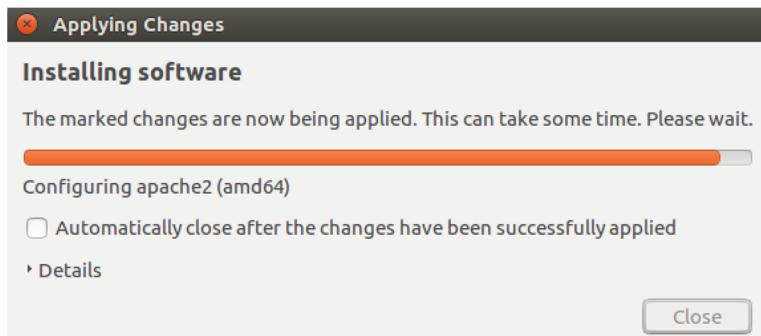
```
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
taco@taco-VirtualBox:~$ sudo apt-get update  
[sudo] password for taco:  
Hit:1 http://ch.archive.ubuntu.com/ubuntu xenial InRelease  
Hit:2 http://ch.archive.ubuntu.com/ubuntu xenial-updates InRelease  
Hit:3 http://ch.archive.ubuntu.com/ubuntu xenial-backports InRelease  
Hit:4 http://security.ubuntu.com/ubuntu xenial-security InRelease  
Reading package lists... Done  
taco@taco-VirtualBox:~$ sudo apt-get upgrade
```

```
$ reboot  
$ sudo apt-get install synaptic
```

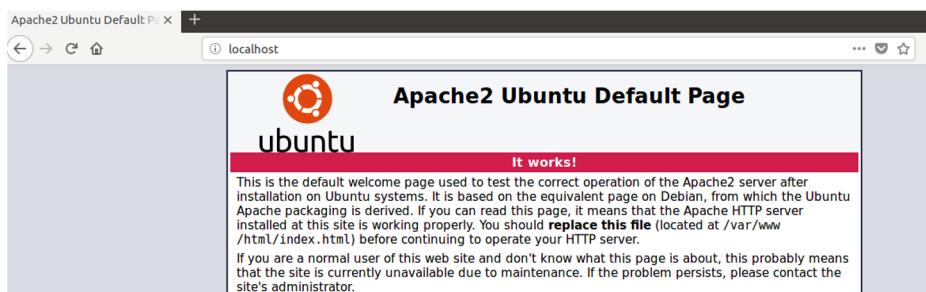
The screenshot illustrates the workflow for installing the Apache 2.4.18 package using the Synaptic Package Manager:

- Authenticate:** A dialog box titled "Authenticate" appears, stating "Authentication is required to run the Synaptic Package Manager". It contains a password entry field with masked input and two buttons: "Cancel" and "Authenticate".
- Find:** A search dialog titled "Find" is shown, with "Search:" set to "apache" and "Look in:" set to "Description and Name". It includes "Cancel" and "Search" buttons.
- Synaptic Package Manager:** The main window lists packages under the "All" section. The "apache" package is selected (highlighted in orange). Other packages listed include alpine-dbg, alpine-doc, ant-contrib, apache2, apache2-bin, and apache2-data. The "apache2" package is also selected. The "Apply" button in the toolbar is highlighted.
- Summary:** A confirmation dialog titled "Apply the Following changes?" displays the changes to be applied:
 - To be installed:** apache2
 - Unchanged:** None

The "Summary" section provides details:
 - 53 packages will be held back and not upgraded
 - 9 new packages will be installed
 - 6373 kB of extra space will be used
 - 1540 kB have to be downloadedA checkbox for "Download package files only" is present, and the "Apply" button is highlighted.



\$ reboot



5. Vagrant

Software herunterladen & installieren

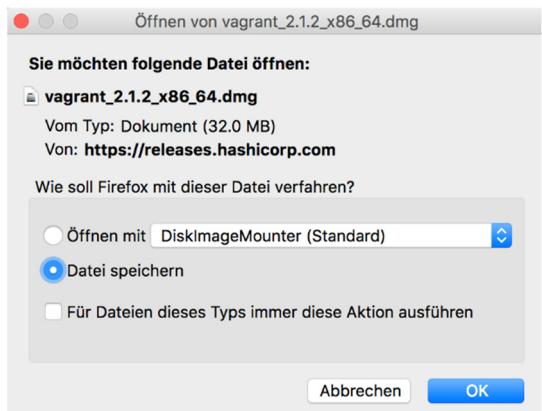
Download Vagrant

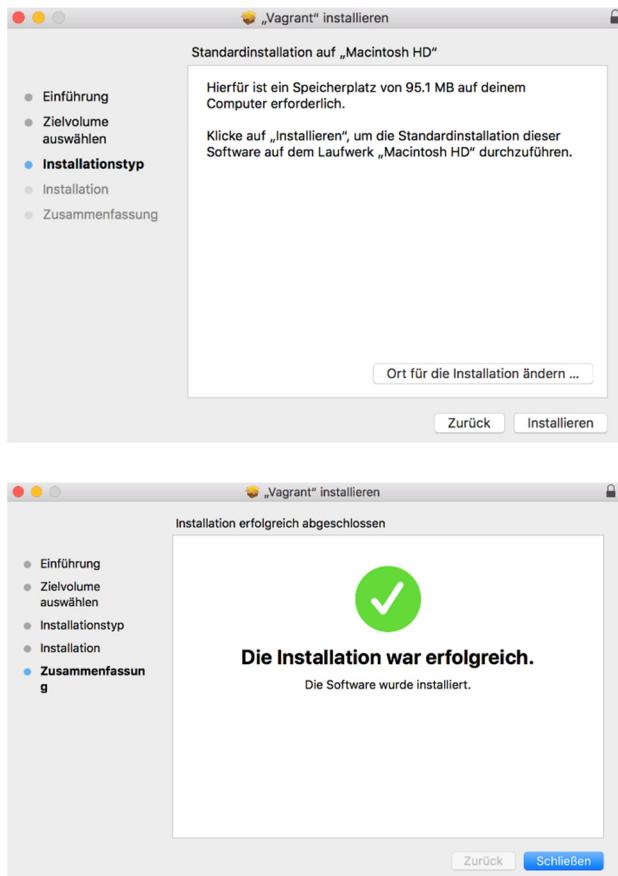
Below are the available downloads for the latest version of Vagrant (2.1.2). Please download the proper package for your operating system and architecture.

You can find the [SHA256 checksums for Vagrant 2.1.2](#) online and you can [verify the checksum's signature file](#), which has been signed using [HashiCorp's GPG key](#). You can also [download older versions of Vagrant](#) from the releases service.

Check out the [v2.1.2 CHANGELOG](#) for information on the latest release.







Virtuelle Maschine erstellen

```
[Michaels-MBP:M300 taco_naco$ pwd  
/Users/taco_naco/OneDrive - TBZ/6. Projekte/BIST18b/M300  
[Michaels-MBP:M300 taco_naco$ mkdir ubuntu  
[Michaels-MBP:M300 taco_naco$ cd ubuntu/  
[Michaels-MBP:ubuntu taco_naco$ vagrant init ubuntu/xenial64  
A `Vagrantfile` has been placed in this directory. You are now  
ready to `vagrant up` your first virtual environment! Please read  
the comments in the Vagrantfile as well as documentation on  
`vagrantup.com` for more information on using Vagrant.  
Michaels-MBP:ubuntu taco_naco$ ]
```

```
[Michaels-MBP:ubuntu taco_naco$ vagrant up --provider virtualbox ]  
Bringing machine 'default' up with 'virtualbox' provider...  
==> default: Box 'ubuntu/xenial64' could not be found. Attempting to find and in  
stall...  
    default: Box Provider: virtualbox  
    default: Box Version: >= 0  
==> default: Loading metadata for box 'ubuntu/xenial64'  
    default: URL: https://vagrantcloud.com/ubuntu/xenial64  
==> default: Adding box 'ubuntu/xenial64' (v20180824.0.0) for provider: virtualb  
ox  
    default: Downloading: https://vagrantcloud.com/ubuntu/boxes/xenial64/version  
s/20180824.0.0/providers/virtualbox.box  
    default: Download redirected to host: cloud-images.ubuntu.com  
    default: Progress: 4% (Rate: 723k/s, Estimated time remaining: 0:06:15)]
```

```
$ cd /Users/taco_naco/OneDrive - TBZ/6. Projekte/BIST18b/M300/ubuntu
```

```
[Michaels-MBP:M300 taco_naco$ cd ubuntu/
[Michaels-MBP:ubuntu taco_naco$ vagrant ssh
Welcome to Ubuntu 16.04.5 LTS (GNU/Linux 4.4.0-134-generic x86_64)

 * Documentation: https://help.ubuntu.com
 * Management: https://landscape.canonical.com
 * Support: https://ubuntu.com/advantage

 Get cloud support with Ubuntu Advantage Cloud Guest:
 http://www.ubuntu.com/business/services/cloud

0 packages can be updated.
0 updates are security updates.

New release '18.04.1 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Wed Aug 29 09:27:06 2018 from 10.0.2.2
vagrant@ubuntu-xenial:~$ █
```

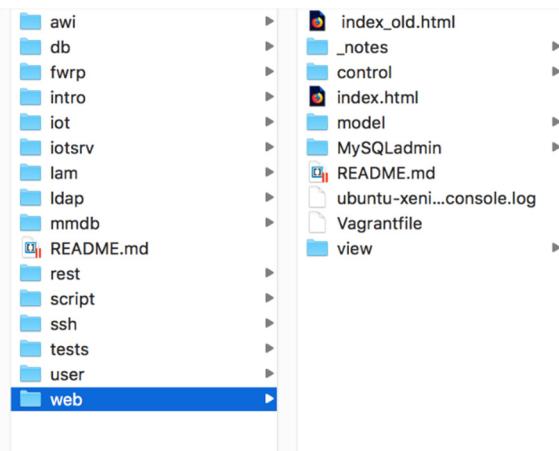
Virtuelle Maschine erstellen (mit Vagrant-Box auf Netzwerkshare)

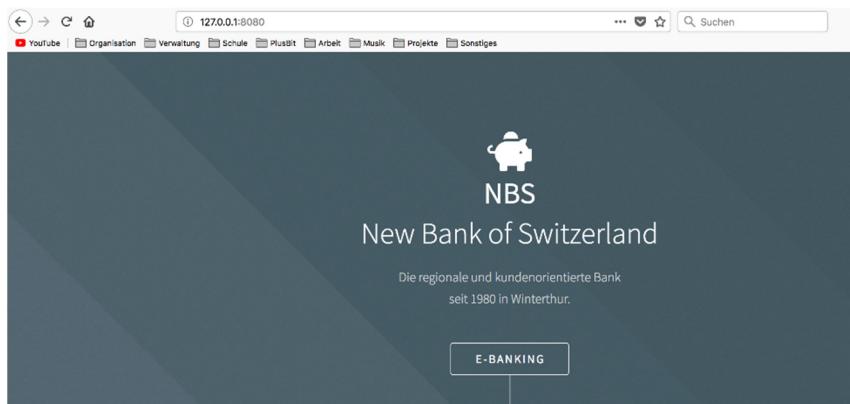
Apache Webserver automatisiert aufsetzen

```
$ cd /Users/taco_naco/devops/vagrant/web
```

```
[Michaels-MBP:web taco_naco$ vagrant up
Bringing machine 'default' up with 'virtualbox' provider...
==> default: Importing base box 'ubuntu/xenial64'...
==> default: Matching MAC address for NAT networking...
==> default: Checking if box 'ubuntu/xenial64' is up to date...
█
```

```
Last login: Wed Aug 29 11:33:29 on ttys000
[Michaels-MBP:~ taco_naco$ cd devops/vagrant/web
[Michaels-MBP:web taco_naco$ pwd
/Users/taco_naco/devops/vagrant/web
[Michaels-MBP:web taco_naco$ vagrant up
Bringing machine 'default' up with 'virtualbox' provider...
==> default: Importing base box 'ubuntu/xenial64'...
==> default: Matching MAC address for NAT networking...
==> default: Checking if box 'ubuntu/xenial64' is up to date...
==> default: Setting the name of the VM: web_default_1535535505554_57694
==> default: Clearing any previously set network interfaces...
==> default: Preparing network interfaces based on configuration...
    default: Adapter 1: nat
==> default: Forwarding ports...
    default: 80 (guest) => 8080 (host) (adapter 1)
    default: 22 (guest) => 2222 (host) (adapter 1)
==> default: Running 'pre-boot' VM customizations...
==> default: Booting VM...
==> default: Waiting for machine to boot. This may take a few minutes...
    default: SSH address: 127.0.0.1:2222
    default: SSH username: vagrant
    default: SSH auth method: private key
    default: Warning: Connection reset. Retrying...
    default: Warning: Remote connection disconnect. Retrying...
```





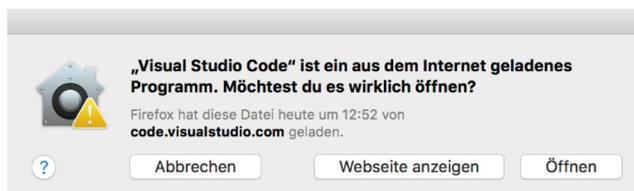
```
[Michaels-MBP:web taco_naco$ vagrant destroy -f
==> default: Forcing shutdown of VM...
==> default: Destroying VM and associated drives...
Michaels-MBP:web taco_naco$ ]
```



6. Visual Studio Code

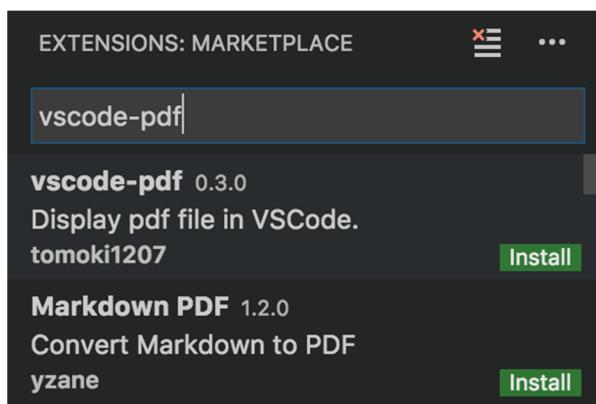
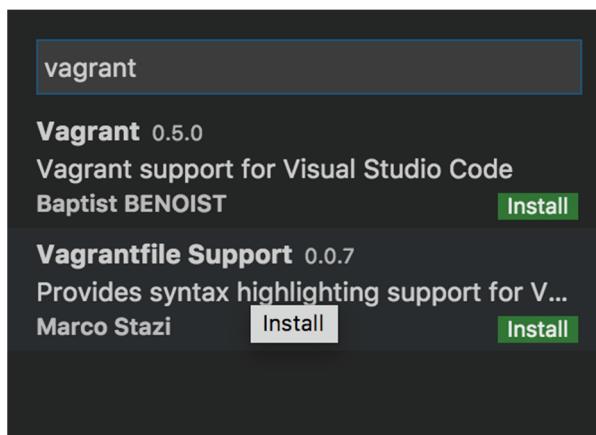
Software herunterladen & installieren



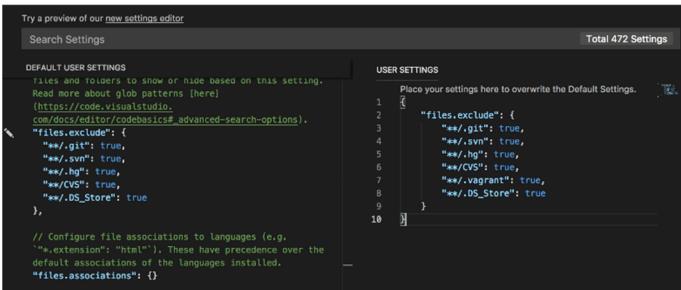
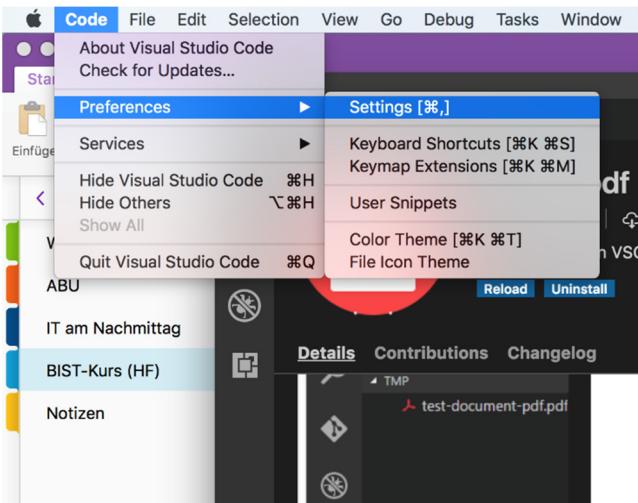


Extensions installieren

CTRL + SHIFT + X



Einstellungen anpassen



Repository hinzufügen & pushen