

# Sanitation Guide: Fast Restoration Method (Labtix)

Labdoo recommends installing by cloning images and using the installation tool Labtix (contributed by Labdoo volunteers). Labtix is freely available and anyone can use it. It runs as a 32-bit ISO image on every laptop and it can clone both 32 and 64 bit images. Since Labtix is under continuous development and improvement, please check our FTP server regularly to see if there is a new version available.

**Note for advanced users:** Labtix has a persistence mode, i.e. you can make your own changes to Labtix and save them. You act as root user in fact. The password (only needed if you "get stuck" in the terminal when booting ) is "labdoo". But beware - as root you can destroy Labtix or bloat it by too many changes. Labtix fits on a CD when delivered. The tool ISO-snapshot also allows you to create a new ISO-file that takes over possible changes to the system.

Labtix comes with different installation tools and you can find most of them on your desktop. Which tool suits you best is up to you. They all have their strengths and advantages:

- Labdoo installer: with a graphical user interface.
- Auto deploy and content installer: complete and terminal-based installation tool that also automates the deployment of additional content to multiple languages.
- "2-click" installer: clone images from the File manager SpaceFM with 2 clicks.

On the Labtix desktop, you will find a red folder "Docs", where you can find manuals as PDF files. However, we recommend you to watch the individual steps and tools in a YouTube video tutorial.

Sometimes you have to select certain settings in the boot menu because of the hardware, e.g. Toshiba, Nvidia and others. Otherwise, it can happen that Labtix doesn't boot, gets stuck at terminal level (the desktop doesn't appear) or the monitor remains dark. In these cases try the options in **Failsafe Mode** or **Safe Video Mode**. This is also explained in the YouTube tutorials below.

All video-tutorials are on our YouTube channel <https://www.youtube.com/user/LabdooDACH/playlists> and on our FTP server <http://ftp.labdoo.org/download/Public/videos/for-technicians/>.

Tags:

[labtix](#)  
[installation](#)  
[installer](#)  
[install](#)  
[image](#)  
[cloning](#)  
[autodeploy](#)

## Preparation for the Fast Installation Methods

If you already have a bootable CD or USB Stick with our Labtix installation environment and Laboo Images for cloning, you can skip this chapter.

Thanks to the **Labtix tool** (LiveCD), all pre-installed learning content in labdoo systems can be "cloned" quickly and easily to new computers using the so-called **images**. These images are available in 4 languages (English, Spanish, German, French). So you can select the language in the target country of the IT donation depending on the language and manually upload further **learning contents** in further languages.

You need two things for that:

**Labtix bootable media:** this can be a CD or USB stick, that you use to boot the Laptop you want to have restored, into the Labtix einvironment.

**External USB hard drive:** to store the cloning images and other learning content from our FTP server (Labdoo also provides an already prepared USB Drive to the volunteers, please contact your local Hub).

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## Labtix: The Labdoo installation environment

To be able to install older and newer computers with a license-free tool, Labdoo.org has a small solution (live-image) based on the Linux-Version [Antix](#) which we have called Labtix (a combination of **Labdoo** and **Antix**).

In Labtix you will find everything you need to delete old data on a donated computer or laptop, for fast and automated installation proceses in order to obtain a ready-to-ship computer. Additionally, Labtix provides many

tools to diagnose hardware, to analyze and solve problems (CPU/processor, temperature problems, damaged hard drives, etc.)

You can download the iso file for Labtix from our FTP server [here \(MD5SUM\)](#).

Once you have downloaded the file, you can create a boot media (CD or USB) from the iso file, which you will use to start and prepare (Sanitation process) donated computers

### Creating a bootable USB or CD/DVD from the Labtix ISO

The next thing to do is to convert the ISO file into a bootable CD or USB bootstick (simple copying is not enough!). This often works with file managers of your favorite operating system or with additional tools. For further questions consult the web (search for "cd / USB stick create ISO" and your operating system).

A blank 750 MB CD is sufficient for one CD (DVD is not necessary), USB sticks go from 1 GB (but usually 4 GB is the smallest size you can get). **Note for technicians:** Labtix has a persistence mode, with which you can save your desired configuration. However, this takes up more space, therefore 4 GB or more is better.

#### WINDOWS:

- Download and run a program for creating bootable media. For example, Rufus: <https://github.com/pbatard/rufus/releases/download/v3.4/rufus-3.4p.exe> (link is external) or another alternative <https://alternativeto.net/software/rufus/> (link is external)

- Run Rufus, select the USB device, click on the "Select" button and select the labtix.iso file, then click on "Start".

#### LINUX:

you will find many useful tools for Linux in the following link: <https://wiki.ubuntuusers.de/Brennprogramme/> (link is external)

But the easiest and fastest way is using dd. Once you know the device path to your USB key (in the example /dev/sdb) run:

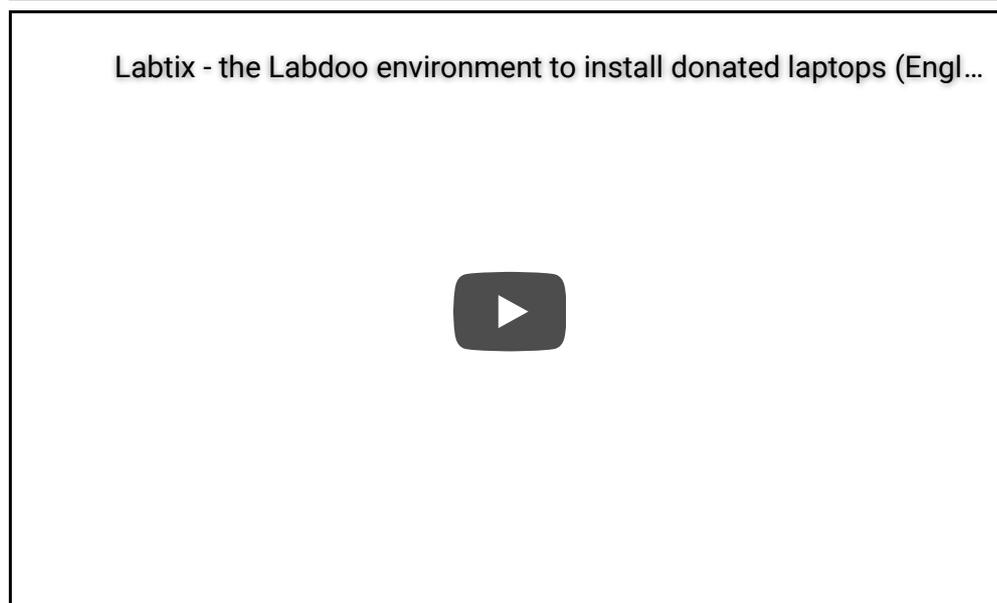
```
dd if=Labtix.iso of=/dev/sdb bs=1M; sync
```

(see details explained under: <https://antixlinux.com/forum-archive/writing-antix-iso-image-on-usb-flas...>)

#### MAC OS:

You can use the following procedure: [<https://osxdaily.com/2015/06/05/copy-iso-to-usb-drive-mac-os-x-command>]

(Here we refer to Internet and search engines).



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## Labdoo-Cloning images method and additional content

For the Fast Restoration method, you need to clone the Labdoo Images. For cloning, you have to download the images first. Images are copies of a complete, pre-installed system (of already sanitized laptops). Linux has a great feature that other operating systems don't have. You can transfer a system from computer A to computer B - and it runs!

You will find these images online in our Labdoo FTP server <http://ftp.labdoo.org/download/install-disk/>. You can also download these images from the web browser by selecting the image you want to download, right-click on it, and then select "save link as".



This does not work for folders or for many files! These have to be downloaded individually and of course, this is a lot of work.

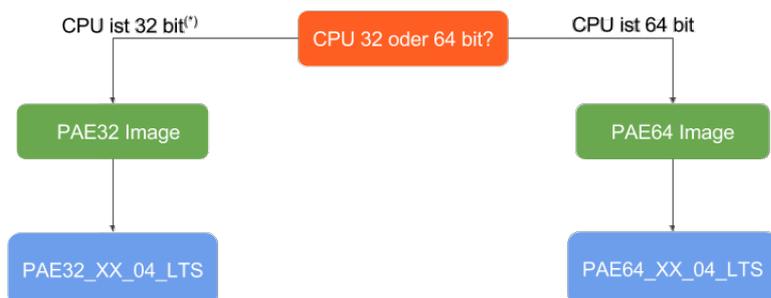
Simple methods for downloading multiple files for all common operating systems can be found at <https://www.labdoo.org/de/content/zugang-zum-ftp-server>

Images are large and the download takes a long time, so if you are familiar with FTP clients, we recommend downloading them directly via FTP (sftp, user **labdoo** and password **labdoo**).

### Labdoo Images for Cloning

When deciding what image is best for you, you should consider the following aspects:

- The CPU/processor architecture of the computer you are currently working on (32 bit or 64 bit). You can easily figure this out with the Labtix environment. It will be displayed in the upper right corner of your desktop (see also the video above).
- The target language you want to install.
- The size of the hard disk in the computer to be refurbished. This size is displayed e.g. in the BIOS or after booting Labtix.



XX = (L)Ubuntu Release Nummer (e.g., 16, 18 ff.)  
 (\*) = im Zweifel das 32 Bit Image verwenden

The name of an image on the FTP server shows:

- There are 4 directories for the 4 available languages:
  - **English (EN):** [http://ftp.labdoo.org/download/install-disk/EN\\_English\\_images/](http://ftp.labdoo.org/download/install-disk/EN_English_images/) : includes versions for 80, 160 and 250 GB Hard drives.
  - **German (DE):** [http://ftp.labdoo.org/download/install-disk/DE\\_German\\_images/](http://ftp.labdoo.org/download/install-disk/DE_German_images/) : requires a minimum of 80 GB HardDrive.
  - **Spanish (ES):** [http://ftp.labdoo.org/download/install-disk/ES\\_Spanish\\_images/](http://ftp.labdoo.org/download/install-disk/ES_Spanish_images/) : requires a minimum of 80 GB HardDrive.
  - **French (FR):** [http://ftp.labdoo.org/download/install-disk/FR\\_French\\_images/](http://ftp.labdoo.org/download/install-disk/FR_French_images/) : (requires a minimum of 80 GB HardDrive)
- **PAE32** = for 32 Bit-CPU's ; **PAE64** = for 64 Bit-CPU's
- **Other 18.04 images** Different sizes for 32 BIT-CUP's and 64 Bit-CPU's: [http://ftp.labdoo.org/download/archive/18\\_04\\_archive/](http://ftp.labdoo.org/download/archive/18_04_archive/)
- **xx\_04\_LTS** = version of Lubuntu it is based on, either 16.04 LTS (kept for legacy), or 18.04 LTS (to be used from 2018 on).

**images**The French and Spanish images occupy 80 GB because they already have the learning content in

these languages (Wikis, OER Open Educational resources,...). The German image is additionally played with German courses, dictionaries in many refugee languages etc..

**The English images of 80 Gbs** as well, but the larger images (160,250 Gbd) include even more learning contents

### Additional learning content

Additional learning content can be added after the installation process if you are not using the autodeploy.sh method that allows you to add additional content during installation. We will come back to this later..

### External USB hard disk preparation (1+ TB)

The downloaded images are already unpacked and ready to use. Copy them to an external hard drive or a local server. The USB disk must be formatted to store large files. For example, FAT32 is not possible because FAT32 can only handle files smaller than 4GB. **NTFS** is the recommended filesystem for an external hard disk.

The automated installation scripts require to be saved to an external hard disk without a parent directory, as they are stored on the FTP server. For further details please refer to the manual <http://ftp.labdoo.org/download/install-disk/labdoo%20autodeploy%20and%20...>

Tags:

[labtix](#) [ftp](#) [antix](#) [partedmagic](#) [bootable](#) [cd](#) [usb](#) [cloning](#) [iso](#) [images](#)

## Connecting to the Labdoo FTP server

The Labdoo FTP server allows users to download files and images for Labdoo devices for free. Here are some simple ways to connect to the FTP server. Pick the one that suits you best. For security reasons, Labdoo does not allow unsecured FTP protocol, only the secured SFTP protocol (no ftp, only sftp).

Keep in mind again, that if this all takes too long or is too much work for you, especially for a one-time installation, then give your IT donation into the hands of Labdoo Hubs and helpers!

**Note:** Labdoo is not responsible for third-party software.

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### 1. Accessing the server through your browser

Open the URL <http://ftp.labdoo.org/download/> in a browser and navigate via the links (Make sure the URL begins with "http://" and not "ftp://"). Here you can download all files for free.

To download a file, click on a link with the right button of your mouse, then click "Save target as" (name can be different depending on your browser and operating system).

This method's advantage is that you can access without a password, but on the other hand files can only be downloaded individually.

How to download single files by browser from FTP server (Engli...



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## 2. Access data to connect to the FTP server

It is more convenient to connect your PC or server directly to the FTP server. Depending on your operating system there are several tools below. We created a user on the FTP server: **labdoo** with the password **labdoo** and read permissions (no write permissions), which is available to you for this purpose. If you need write permissions, please contact [contact@Labdoo.org](mailto:contact@Labdoo.org) (EN) or [Labdoo-DACH@Labdoo.org](mailto:Labdoo-DACH@Labdoo.org) (DE).

**Protocol** = sftp (sftp is safer than ftp, so only sftp is available)

**Server** = sftp.labdoo.org

**Username** = labdoo

**Password** = labdoo

**Path** = /var/www/download

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## 3. Integrate into the file manager (Windows, Swish)

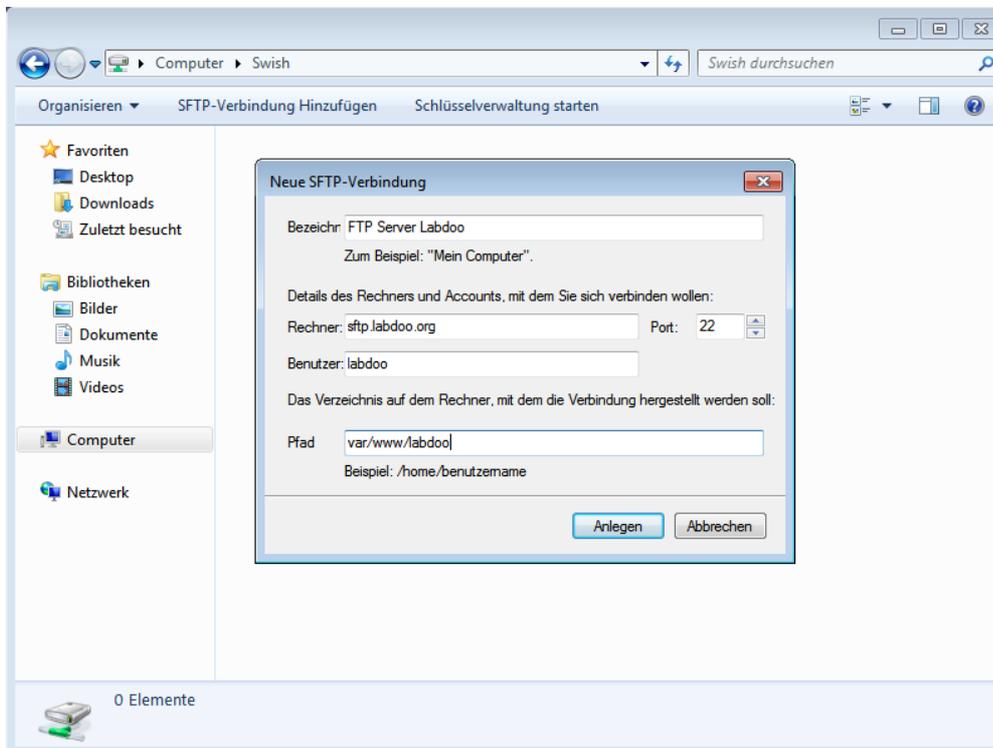
Windows does not offer its own way to connect the file manager to an FTP server via the sftp protocol. ftp would be possible, but we do not offer this for security reasons. However, you can use additional programs sftp, e.g. the **Swish Add-on** for the Windows file manager <http://www.swish-sftp.org/> (link is external) .

Connect to FTP server using file manager and Swish (English)

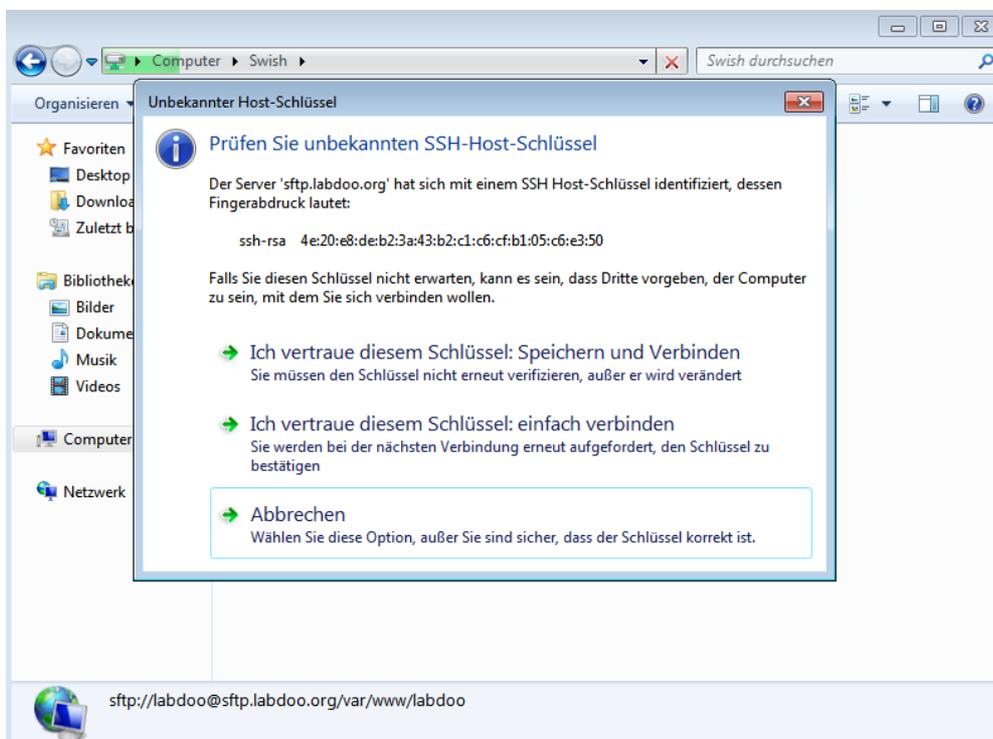


After installing Swish, you have to set up the access to the FTP-Server:

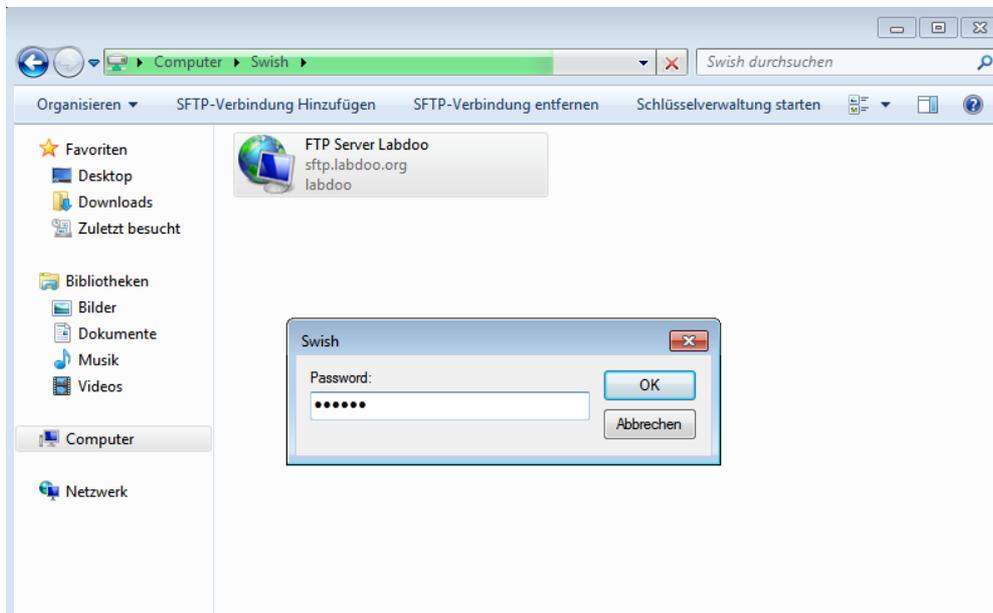
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**Login to the FTP server:** Name - choose a name of your choice; server: sftp.labdoo.org; user: labdoo; path: /var/www/download



**Security key:** Save and connect - key remains permanently on the PC until changed; Simply connect - key is only saved for this session and will be queried again next time

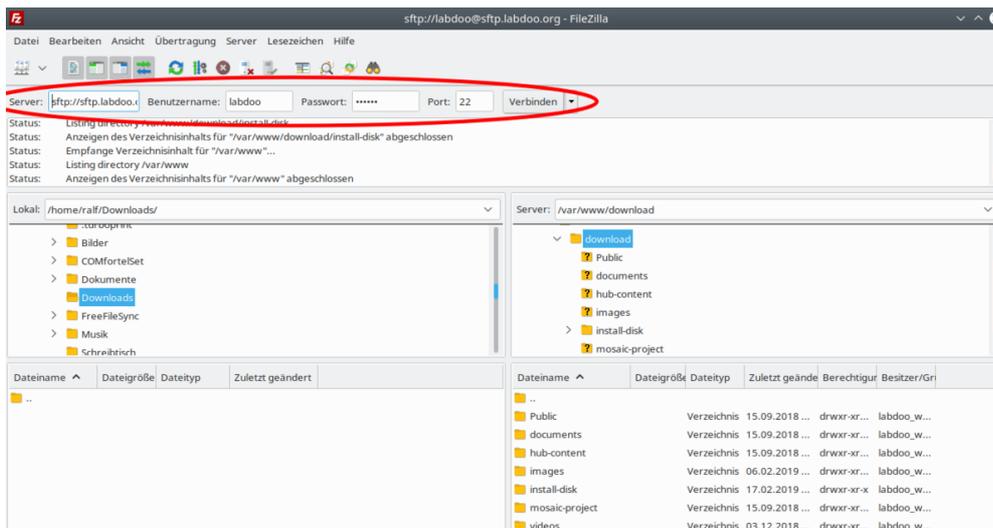


Enter the password **labdoo**, now you can use the FTP server like a drive on your PC.

#### 4. Filezilla

It is easy to connect your computer to the FTP server with special tools if you need to download massive files. The free FTP client Filezilla can be downloaded here <https://filezilla-project.org/>.

The start path can be set in the settings under Advanced --> Default directory on the server. Then you don't always have to click through the whole file system.



Enter the access data:  
 Server - **sftp://sftp.labdoo.org**  
 ; Username **labdoo** ;  
 Password - **labdoo** ;  
 Port - **22**

## FTP server connection using Filezilla (English)



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## 5. Linux

If you are using GNU/Linux, you can easily integrate the FTP server using the sftp protocol (secure FTP). Simply enter the path for the FTP folder → `s_COPY13@ftp.labdoo.org:/var/www/download/` in your favorite file manager.

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## 6. rsync

More information about using rsync for Linux users can be found here <https://wiki.ubuntuusers.de/rsync/>.

If you want to mirror the whole FTP server, you can do so with the following command `rsync -avHe ssh labdoo@ftp.labdoo.org:/var/www/download/` (Attention: Several 100 GB!)

If you want to mirror the subfolder `/install-disk` (installation disk), you can do this with the following command `rsync -avHe ssh labdoo@ftp.labdoo.org:/var/www/download/install-disk` (Attention: almost 1 TB!)

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## 7. Connecting Apple iOS using iTransfer to an FTP server

For Apple and iOS you can install and use the free tool iTransfer <https://itunes.apple.com/us/app/ittransfer-file-transfer-tool/id530424200>

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## 8. recommended folders or links

If you want you can mirror the whole FTP drive :) Maybe you should choose the content you really need? Here are some useful paths that might be of interest to you:

All data necessary for an installation: <http://ftp.labdoo.org/download/install-disk/>

English documents: <http://ftp.labdoo.org/download/documents/english/>

Graphics + logos: <http://ftp.labdoo.org/download/documents/material/>

If you have any questions send an e-mail to [Labdoo Global Support team wall](#) and a Labdooer will get back to you.

Windows is a registered trademark of Microsoft Corporation.

Tags:

[sftp](#)  
[ftp](#)  
[rsync](#)  
[filezilla](#)  
[server](#)  
[download](#)  
[images](#)  
[swish](#)  
[ios](#)  
[itransfer](#)  
[browser](#)  
[dateimanager](#)

## 2 - Click Installation Method

This section describes how to use the file manager SpaceFM to clone images with just 2 clicks.



- Double-click to start the file manager SpaceFM.
- Mount the drive on which the images for cloning are located.
  - For external USB drives: plug it in, the drive appears with a - in front of it, then click on the entry and the "-" becomes a "+".
  - On a server: Plugins→MountShare→Scan and manually enter the IP address of the server, if necessary select Share from the list, User and Passwort→Mount.
  - The drive / server is now mounted, i.e. the computer has access to it.
- Open the folder with the images.
- Right click on the folder containing the image to be installed.
- Click on "Labdoo Image Installer" in the displayed functions list.
- In the next window:
  - Put a checkmark at "Shred sda" (hard disk will be overwritten 3 times) or remove it (hard disk will not be deleted),
  - Optional: enter host ID, if already known (otherwise this can be changed after restart)
- The image is now copied to the internal hard disk sda.
- At the end GParted opens for control to display the finished partition on sda. The whole hard disk should be available. Close GParted. In rare cases the automatic adjustment of the partition does not work. Then it can be adjusted manually.
- The window with the installation's confirmation will appear, confirm with "ok" and close.
- The installation will be confirmed in the terminal, then close with "Enter".
- The installation is complete. Labtix can be shut down with "Poweroff" or "Save Poweroff" and the computer can be restarted.

Tags:

[2-clicks](#)  
[spacefm](#)  
[filemanager](#)  
[clone](#)  
[cloning](#)  
[image](#)

## Autodeploy (autodeploy.sh) method

### Autodeploy and content installer: the complete terminal based script installation tool

NOTE: The new version (included in Labtix from September 2018) automates the deployment of learning content to multiple languages (not visible in video)



Manual (pdf): <http://ftp.labdoo.org/download/install-disk/labdoo%20autodeploy%20and%20...>

Tags:

[installation](#)

[autodeploy](#)

[skript](#)

[automatic](#)

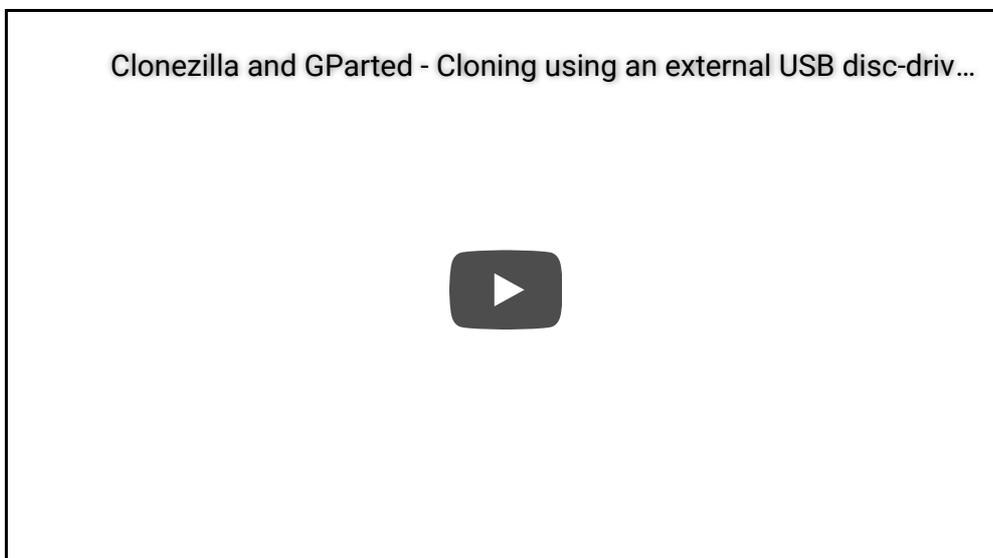
## Clonezilla - Clone Images (for experienced users only)

### Choose the appropriate Labdoo images for cloning

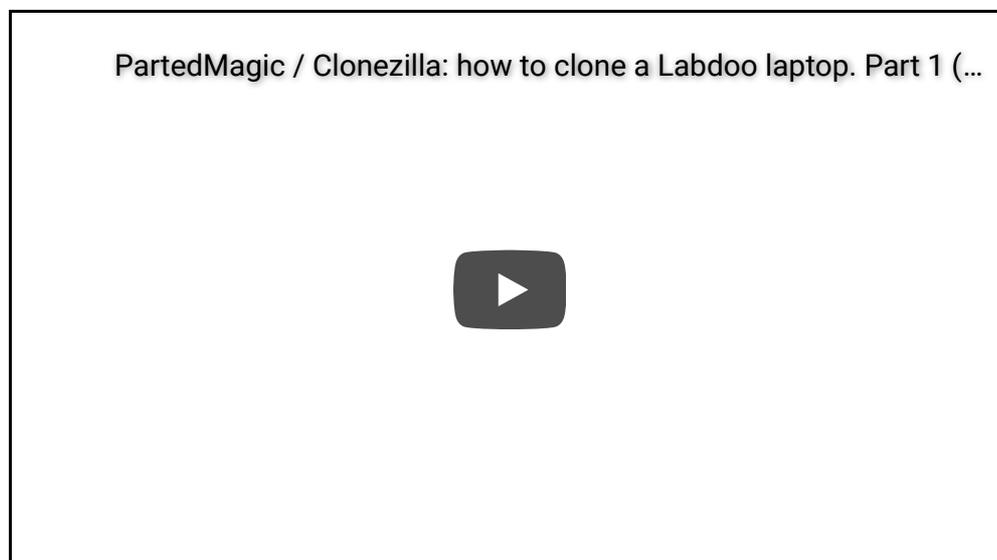
We recommend Clonezilla only for experienced users. The Labdoo Installer tools, auto-deploy or 2-click Installer included in Labtix are more suitable. You can find a Clonezilla on the Labtix desktop (double click on the icons to start it).

### Clonezilla - how to clone a computer using Clonezilla?

#### Cloning from an External USB Hard Drive (2018)



## Cloning from a local server (2017)



Double-click on the **Clonezilla** icon. Labdoo Images for Cloning are complete images of ready-to-run systems.

Therefore choose the selection **image - Image**. Labdoo always sets images (not device!) based on versions online.

→ **device-image** (Labdoo always sets images online, so choose this option)

→ **select the storage medium** on which the image is located, if necessary with paths and passwords. For external USB disks/sticks this is usually sdb. In Linux the disk drives that start with sda (usually system disk) are named with ascending letters. Pay attention to the instructions on the screen, only plug in USB drives on request and wait for about 5 seconds.

→ Select **Expert** Mode (we always recommend this mode). The image "remembers" the size of the disk where it came from. For example, if the image came from a 60 GB disk, but is about to be installed on a 40 GB disk, the hint "Target disk too small" appears in Beginner Mode and aborts. **In Expert mode you can later check the -icds option, which overrides this check (see below).**

→ Select "**Restoredisk**" to restore an image.

→ Select **the image that suits best to your CPU**(important is PAE / nonPAE or 32 / 64 Bit, suitable for the CPU)

→ confirm the **target hard disk** (in most cases sdb or sdc)

→ in "Expert Mode" go to the **-icds option** from the list and confirm with the space bar ("do not check if target disk is smaller than source disk"), then mark with the space bar (\*)

→ Confirm the following entries either with "Enter" or with "Y" (Yes)

→ The installation should start and take about 15 - 60 minutes. Afterwards all data, including operating system, software, settings, learning content etc. are already installed.

In addition to the queries and entries, log lines (white font), notes (green), warnings (yellow) and error messages (red) will appear in the Clonezilla window. Apart from the red error messages, everything else is usually uncritical. And even with the red hints you can ignore the message "unable to find..." towards the end of the cloning process.

Tags:

[installation](#)

[clonen](#)

[image](#)

[images](#)

[install](#)

[clonezilla](#)

## Installed tools for Labtix

Labtix comes with some useful, pre-installed tools:

**SpaceFM.** A file manager for the usual file actions and for mounting external devices. It also has plugins to mount shares and burn CDs or DVDs and others. SpaceFM is highly configurable and can be modified with additional plugins. The trashcan is disabled to prevent the accumulation of too much data in persistent mode, but it is addable as a plugin if needed. It should not be removed, because it is part of the desktop's environment!

**Conky.** A tool for displaying system information on the desktop. The output window is located in the upper right corner. The configuration file is `/etc/conky/conky.conf`.

**Arandr.** A tool to configure the screen layout. Very useful if the internal monitor was removed from your device and an external monitor is connected.

**ISO-Snapshot.** A tool to create an ISO snapshot of the system. The Snapshot saves all changes to the system. While running ISO Snapshot, select the directories that are NOT addable to the snapshot, except the "Desktop" directory that contains the `.desktop` files. You should move existing snapshots to a directory that you do not want to add to the Snapshot. The Snapshot is saved in `/home/snapshot`. If you create Snapshot in a non-persistent system (for example, booting from CD-ROM), you should store it on another device. If there is not enough space to store the snapshot, the storage path can be set to another USB stick. It is possible to install Snapshot on a USB device with UNetbootin or to burn to a CD-ROM or DVD-ROM using SpaceFM's IG-Burn tool plugin.

**UNetbootin.** A tool to create bootable USB sticks. Start Unetbootin, activate "Diskimage", select the ISO snapshot (should be in `/home/snapshot`) and select the USB target drive. You should format the USB stick with fat32 and mount it (use SpaceFM for this). After the installation on a thumbdrive, you should use Gparted to check if the boot flag is set correctly!

**Networking.** Use the command line tool `ceni` or `WICD` to set up WLAN. LAN should work by default. Due to the low transfer rate, images should not be installed via WLAN.

**Psensor.** A tool to control the temperature of CPU, GPU and others.

**Gsmartcontrol.** A tool for reading the hard disk's S.M.A.R.T. data to check if the hard disk is ok. If you see "red" in the registers, you should use a different hard disk.

**Tip:** If a Seagate hard disk displays thousands of events for reallocating reallocations in the Attributes tab, the drive is not damaged. These hard disks have different firmware, specifically for Lenovo computers that uses the memory bit for reallocation events for other purposes.

**Gparted.** A great tool for partitioning disks, repairing file systems and copying partitions.

Using the **Keyboard Layout Handler** on the right side of the panel you can change the keyboard layout with a left mouse click. To make a permanent change, right click and use the "Keyboard Layout Handler Settings". The topmost keyboard layout in the list will be preset at startup. With a left mouse click you can browse the pre-installed keyboard layouts (German, US English, French, Spanish).

**Hardinfo.** A tool that gives you extensive information about the hardware and software of the computer.

The **battery-plugin** in the panel gives you information about the status of the battery when the mouse moves over it. With a right mouse click and "Battery Monitor Settings" you can activate the plug-in, if you haven't already done so.

**Firefox-esr** is a slimmed down version of Firefox and helps you researching the web. It can also display pdf files. By default, it does not collect cookies and does not store data, to avoid bloating with unnecessary data in persistence modeLabtix.

For more information please use the man pages of the help function in the terminal (eg "man gparted" or type in "psensor --help" and press (Enter)) or use the internet.

### Desktop Settings:

The Labtix desktop environment is based on **openbox** with the additional **lxpanel**. If you right-click on the desktop, you can select "Desktop Settings" so you can make changes to the desktop. To install new starters on the desktop, copy them from `/usr/share/applications` on the desktop. To move icons on the desktop, use Shift + Drag. Please note that in some cases SpaceFM will move the items from the folder. In this case please copy them back. The "Add to Desktop" function of the Lxpanel menu does not work with Openbox.

To make changes to Lxpanel, simply click the panel with the right mouse button.

Use the Openbox Configuration Manager to change the design of the windows and other general optimizations. For Autostart: Copy the `.desktop` files to `/etc/xdg/autostart` or edit `/etc/xdg/openbox/autostart` for necessary commands.

### Persistence

Persistence allows you to save changes to a live system like Labtix. An additional file to save all changes of the running system is addable to the USB stick. Enabling persistence on boot will slow down the boot process. Mainly, you could use Persistence so you can make changes to a live system like Labtix and create a new

snapshot to get a new, stable and fast boot live system. You can only install Persistence on a USB stick. We recommend UNetbootin to install Labtix on a USB stick. USB sticks created with dd cannot be made persistent.

#### Make a USB stick persistent:

Booting from a Labtix USB stick. In the first boot screen, select the options "F5 -> persist\_root" and "F8 -> save" and press "Enter" to boot. Follow the instructions to add persistence to the USB stick. Select "manual" as storage method. Adding the persistence file to the USB stick can take several minutes per GB. So please be patient.

As long as the option under "F5" is set to "persist\_root", the USB stick will boot into persistence mode. Sometimes it is useful to boot without persistence. This can be done by setting the option under "F5" to "none".

In Labtix there is a green "Save Poweroff" button on the right side of the panel to save and shut down system changes and a red "Poweroff" button to shut down the computer without saving changes.

Tags:

[labtix](#)  
[tools](#)

## Labdoo Installer: Clone with the Graphical User interface

**Labdoo Installer - the compact installation tool with graphical interface**



- Start the Labdoo Installer with a double click on the the Labtix desktop's icon.
- 2 windows will open. The terminal shows if it is 32 or 64 bit CPU. The second window displays the hard disk to be installed (in most cases sda). Confirm with ok.
- in the next window:
  - shred = number of erase runs (from 0 to 3 possible, 3 pre-set)
  - Target Disc / Target Drive sda (must not be mounted)
  - Display of the hard disk's size (only for your information, to be able to select the matching image)
  - Select image →click on the triangle aside "home"→Select **Other...**→then navigate into(!) the foldercontaining the unzipped image (just marking the folder is not enough, you have to open it); confirm with "Open",
  - optional: Enter Host-ID, if already known (but it can also be entered after restarting the computer)
  - start the instalation by clicking "OK".

Tags:

[installer](#)  
[gui](#)

## UEFI Boot only or BIOS locked and UEFI set

[This page explains a solution in case a donated computer can only boot with UEFI or the BIOS is locked (password unknown) and UEFI is set as the boot option. If your computer can boot in legacy mode, you can skip this page].

Back in 2013/2014, there was a technical and legal discussion about SecureBoot and UEFI. The manufacturers argued that only UEFI boot on their computer provides security and therefore must only be used. However, the EU and NGOs went to court and the judges decided that the computer manufacturers had to re-open the BIOS settings so that users could choose whether to use the UEFI boot, the legacy boot (the "old" boot) or both as boot options. Computers that were produced before the "UEFI only" decision and after the old flexibility decision have no problem installing with Labtix and prepared Labdoo images.

**However, if the computer was manufactured in the "UEFI only" period in 2013/2014, this may cause problems when installing a Ubuntu-based installation. Our Labdoo images are set up for legacy boot, not for UEFI boot (although Ubuntu could). We have described a solution for these specific UEFI-only machines here.**

**Another use case is a locked BIOS. A computer has been donated, but a BIOS password has not been removed and is unknown. If the boot option in the BIOS is set to "UEFI / Secure Boot Only" and cannot be switched to "Legacy Boot" because of the password lock, you can run the installation process described below and then use the computer for Labdoo.**

If our solution is too difficult for you, please contact Labdoo helpers or hubs in your country / region and ask them for support.

You can use the installation tool Labtix (recommended, supports UEFI-Boot) or Parted Magic. PXE is not possible because you have to select certain options during the installation process and PXE does not allow access to these settings.

The installation sequence is rough:

- First install a small Xubuntu based image via cloning in a partition (Xubuntu is able to UEFI boot); a prepared image is available on FTP server [http://ftp.labdoo.org/download/install-disk/special\\_images/](http://ftp.labdoo.org/download/install-disk/special_images/),
- Next, install in a second partition of one of our Labdoo images with slightly different settings than usual.
- Change the grub boot file.
- After that, the system will boot and a user will not even notice that this is a special "UEFI only" laptop.
- This solution only works for 80 GB disc-drives or bigger.

So here are the steps in details:

1. Download the special UEFI-Boot image, available on our FTP-Server [http://ftp.labdoo.org/download/install-disk/special\\_images/](http://ftp.labdoo.org/download/install-disk/special_images/) and copy it to a local USB-drive or any local server.
2. Start Labtix, run the Clonezilla tool (icon on the Labtix desktop) and make the drive with the special UEFI image available - Important: Use "expert mode" and "restoredisk", mark the option -icds . For experts: Or install Xubuntu (I think all other UEFI based \* buntu do it too) in UEFI mode on the device.
3. If you use the prepared UEFI image, the size of the partition sda2 is set to 80 GB by default. A Labdoo image for 80 GB fits. If you want to install an image for a 160 GB or 250 GB hard drive, you have to enlarge the partition sda2 with GParted.
4. Shut down the computer and restart it with Labtix.
5. Start Clonezilla to replace **sda2(!)** of the installed UEFI-Boot image / Xubuntu by replacing "**restoreparts**" with **sda1** of the Labdoo-image you want to install. Make sure you choose the target-partition **sda2** when asked and the "**-icds**"-option in "Clonezilla advanced extra parameters". Make sure the option "**-k Do NOT create a partition table...**" is checked.
6. After installing sda2, use GParted to maximize sda2. Check if the "boot"- and "esp"-flags are set to sda1. To retrieve the UUID of sda2 right-click on it and select "Information". Mark the UUID and copy it with "Ctrl" + "C" to the clipboard.
7. Edit /EFI/ubuntu/grub.cfg in the EFI-bootpartition ( usually sda1, the small partition with 512MB ) with the editor Geany and replace the given UUID with the UUID of sda2 you copied by GParted. E.g. open SpaceFM -> sda1 -> navigate to /EFI/ubuntu/grub.cfg -> right mouse click -> open > Geany editor -> in line 1 you will see a UUID -> mark and paste the new UUID from the clipboard. Don't forget to save the file before closing Geany editor.
8. Shut down and restart the computer. Now it should start in UEFI mode and users will see the Labdoo login after a short time.

This description is very technical, but it works. If you know a simpler solution, please feel free to contact us. A special thank you goes to helpers from hub Rhein-Ruhr (Germany) for noticing and solving this specific problem.

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