

3 Installer overview

Starting the installer

A successful boot from an OpenSUSE Leap install medium will result in a green or black menu with an OpenSUSE logo presenting the options *Boot from Hard Disk*, *Installation* etc. Select *Installation* with the arrow keys and press *Enter*.

Starting the installer may take a few minutes. During the process, your screen shows white text on black background and sometimes green bars.

If you see a blue menu asking whether you want to accept a new license, select *Yes* using your arrow keys and hit *Enter*.

Language and License

Here you pick your new system's language and keyboard layout.

Note: *German* and *German (Switzerland)* are not the same.

Network and options

Info: We will do the installation without networking to speed up the process. No worries, we will update your system later on.

Should any section come up with *Networking* please click Next.

In *Installation Options* **uncheck** both boxes.

Partitioning

Now we partition your system and assign Linux some sections of the hard drive. Please refer to *4. Partitioning – OpenSUSE* for this part.

Time

Here we set the computer's time zone. Select it by either clicking with your mouse cursor or by selecting your nearest city from the drop-down menus.

Note: If you install OpenSUSE alongside Windows, **untick** the option *Hardware Clock Set to UTC*.

Desktop Environment

Here you select the Desktop Environment of your choice.

Note: XFCE can be found in the submenu *Other*.

User Information

Fill in your login details. Give yourself a full name, user name and password.

Note: *Automatic Login* is enabled by default. This means you will be automatically logged in when you turn on your PC. This is convenient, but less secure than entering your password first. If you don't want automatic login, untick this.

Summary screen

This is the last screen before the actual install — nothing has been committed thus far — and shows a summary of what will be done. Typically you don't need to change anything here and can just hit *Install*.

⚠ WARNING: Confirming this last dialog will start the actual install.

Mac users please read:

If you use a Mac, you previously installed rEFInd as a bootloader. This means you don't need the OpenSUSE default bootloader, GRUB. In fact, installing GRUB on top of rEFInd will cause problems, so you will want to disable GRUB. Please do the following:

1. Click on the green text in the summary that says *Booting*.
2. A menu appears that lets you select your bootloader. In the drop down menu on the left side under

Boot Loader, select *Do not install any bootloader*.

3. Confirm by clicking *OK*.

Note: After confirming, the summary screen will display a red warning saying that OpenSUSE may not boot without installing a bootloader. You can safely ignore this, because you already have a bootloader (rEFInd).

 **WARNING:** Do NOT perform these steps if you have a Windows system!

The install process will take a while now. Relax, take a break and get some food.

Once it has completed, the computer will reboot automatically. You may now remove the installation media (i.e. the stick we gave you). When the boot manager (i.e. GRUB) shows up, press the space bar to pause the countdown. You may now proceed to *6. Testing* in this guide.

4 Partitioning

IMPORTANT: If you feel lost, feel free to ask for help at any point in time during this process. We will gladly help you.

Partitioning your hard disk is probably the scariest step of the entire installation process. This is where you can destroy your data. But don't worry — the installer will figure it all out for you in most cases.

The install guide provides you with this partitioning page, that explains how you go through the partitioning step, plus an informational section *5. Partitioning Plan*.

You need to decide whether you want a separate home partition, and how much space you want to dedicate to Linux (if you are dual-booting). *5. Partitioning Plan* provides some explanations to help you make better decisions. It also contains a list of all the partitions you need.

Note: If you are new to Linux or have never partitioned your drive then we recommend you to read *5. Partitioning Plan* before commencing further in this section.

Guided partitioning

The OpenSUSE partitioning menu is very advanced and gives you a lot of information. The most important is the summary you see at the top. It tells you all the modifications it will do to your hard drive and highlights the potentially dangerous ones in red.

The first thing to do here is to change the file system type to *ext4*. OpenSUSE uses *btrfs* and *xfs* as defaults. The former being a newer file system with many advanced features but not fully reliable and the latter an old but robust alternative to *ext4*.

1. Click on *Edit proposal Settings*
2. For the *File System for Root Partition*, pick *ext4*.
3. If you don't want a separate home partition, untick *Propose Separate Home Partition*. See *5. Partitioning Plan* for more details on this.
4. If you want a separate home partition, select *ext4* for the *File System for Home Partition*, then click ok

The summary on the top should now be noticeably shorter. Carefully read the entries. Pay attention that no existing partitions are deleted or formatted, as this will destroy data. Shrinking an existing partition is fine.

Compare the summary with your partition plan and make sure all the required partitions are created. If so, you can continue. If not, you can manually partition your disk using *Create Partition Setup*.

Mac users please read:

If you have a Mac, you will need to perform some additional setup here to make OpenSUSE work with the rEFInd bootloader you previously installed:

1. Click on *Expert Partitioner*.
2. On the left hand side, click on your main drive (usually sda).
3. You now see a list of partitions. Select the one labelled as *EFI System Partition* or similar.
4. Click on *Edit...*
5. You should see a dropdown menu that is currently set to */boot/efi*. Click inside the menu so that you can change the text. You need to change the text using your keyboard because the option you need is not in the dropdown menu.
6. Change the text to */boot*
7. Now, click *Finish*.
8. In the partitioner, click *Accept*.

Note: The installer will display a warning at this point, saying that openSUSE won't be able to boot with this setup. You can safely ignore this warning because you have rEFInd installed, which can still boot openSUSE. When the warning appears, just click *yes*.

Note: After the first warning, yet another warning appears, saying that you install on an existing partition without formatting it. This is also fine. OpenSUSE will put its boot files next to the boot files used by Mac OS X, which is okay. Click *Yes*.

If you feel uncomfortable during this step, feel free to ask a helper.

 **WARNING:** Do NOT perform these steps when you have a Windows PC!

You can now go back to *3. Installer overview – OpenSUSE* and follow the remaining instructions if everything looks fine.

Note: If something looks wrong, please read the text box below.

Help, my partitions are being deleted!

There are two main reasons for this:

- *You have the MBR partition scheme, and you already had four main partitions.* In this case, you need to delete one partition — there's no way around it. Now you need to make sure the partition that's deleted is not important. On HP laptops, you often find a partition called HP-TOOLS which doesn't contain anything important. On other laptops, you may find a windows recovery partition that you can get rid of. Ask a helper if you're not sure about this.
- *Your existing Windows/Mac OS partition can't be shrunk.* This can be a major problem. Try manually creating a partitioning setup using *Create Partition Setup*. If that doesn't work, please ask a helper.

Manually partitioning your disk

Ideally, the automatic partitioning suits your needs and you don't need to do this. But if the automatic tool fails, you can try creating your partitions by hand. To do this, click on *Create Partition Setup...*

1. Choose *Custom Partitioning (for experts)* and click *Next*.
2. Click on *Hard Disks* on the left. Expand that section by clicking on the small arrow next to it. Then, pick your main drive, usually *sda*.
3. You should see a list of all your current partitions. If you haven't already done that from within Windows or Mac OS X, you should now shrink your existing operating system partition (that should be the largest in size).
 - (a) Select the partition in the list and click *Resize...* at the bottom.
 - (b) Choose *Custom Size* and enter a new size in the text field. A good measure is to use halve it.
 - (c) Click *OK*.
4. Now create all the partitions you need.

Note: If you have MBR, you first create an *Extended Partition* and make it as large as possible. This partition serves as a container for more, smaller partitions.

- (a) Click *Add...*
 - (b) Select your partition size according to *5. Partitioning Plan*. Click *Next*.
 - (c) Select your partition's usage. *Operating System* is for the root partition, *Data and ISV applications* is for your home partition and *Swap* is for your swap partition. Click *Next*.
 - (d) Under *Format Partition*, select the file system you need according to *5. Partitioning Plan*. Under *Mount point*, choose the mount point you need. Click *finish*.
5. You can also edit the mount point and formatting options of existing partitions by selecting them and clicking on *Edit...*

Note: This is sometimes required in order to designate an EFI boot partition.

You can now go back to *3. Installer overview – OpenSUSE* and follow the remaining instructions if everything looks fine. If not, please ask for help.