Debian - Basic OS Installation from ISO (Debian/Win2019)

Image

Download an .ISO for the installation of Debian Linux.

The minimal .ISO (net install) will do, as long as the machine has network connectivity.

The current image can be found on this page: https://cdimage.debian.org/debian-cd/current/amd64/iso-cd/

The **netinst.iso** image is the correct one - scroll down to the bottom to select the appropriate version:

Other questions?
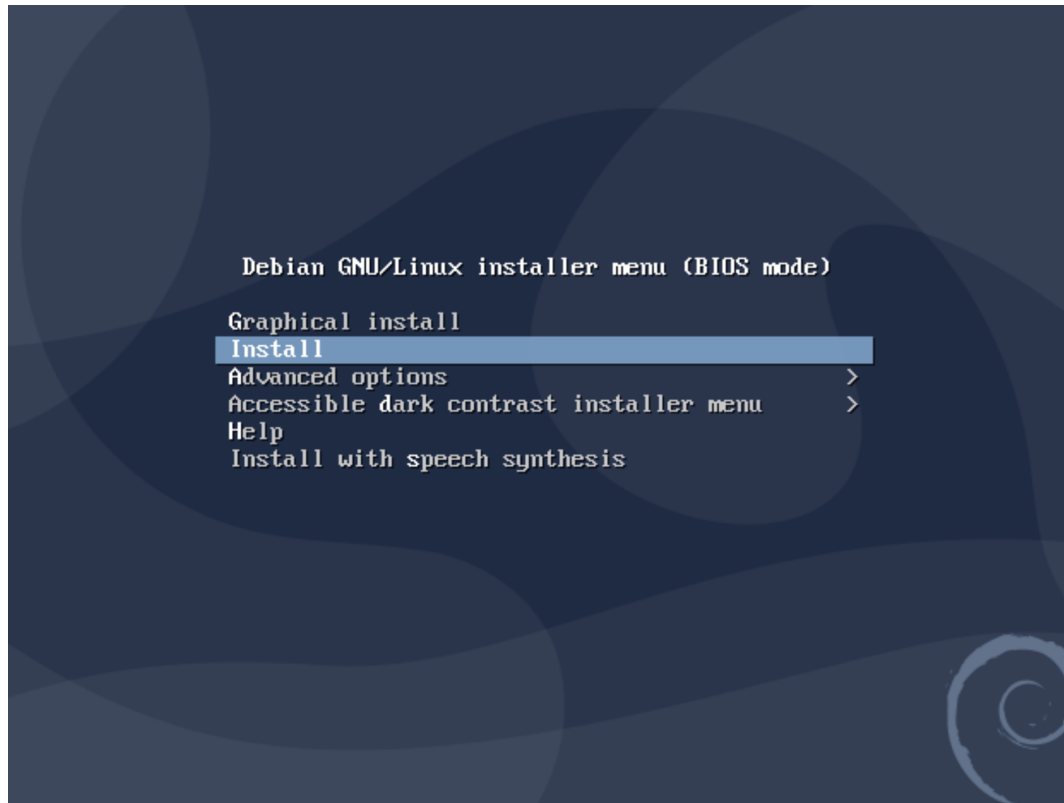
See the Debian CD FAQ for lots more information about Debian CDs and installation.

The images here were put together by the Debian CD team , using debian-cd and other software.

Name	Last modified	Size
Parent Directory		-
SHA256SUMS	2021-08-14 22:19	302
SHA256SUMS.sign	2021-08-14 22:22	833
SHA512SUMS	2021-08-14 22:19	494
SHA512SUMS.sign	2021-08-14 22:22	833
debian-11.0.0-amd64-netinst.iso	2021-08-14 13:51	377M
debian-edu-11.0.0-amd64-netinst.iso	2021-08-14 13:51	438M
debian-mac-11.0.0-amd64-netinst.iso	2021-08-14 13:51	377M

Installation

Select the **text installer**:

Select **English** as the language:

```
                    ┤ [!!] Select a language ├

Choose the language to be used for the installation process. The selected language will
also be the default language for the installed system.

Language:

                    C                    -  No localization        ↑
                    Albanian             -  Shqip
                    Arabic               -  عربي
                    Asturian             -  Asturianu
                    Basque               -  Euskara
                    Belarusian           -  Беларуская
                    Bosnian              -  Bosanski
                    Bulgarian            -  Български
                    Catalan              -  Català
                    Chinese (Simplified) -  中文(简体)
                    Chinese (Traditional)-  中文(繁體)
                    Croatian             -  Hrvatski
                    Czech                -  Čeština
                    Danish               -  Dansk
                    Dutch                -  Nederlands
                    English              -  English
                    Esperanto            -  Esperanto
                    Estonian             -  Eesti
                    Finnish              -  Suomi
                    French               -  Français
                    Galician             -  Galego
                    Georgian             -  ქართული
                    German               -  Deutsch                 ↓

        <Go Back>


<Tab> moves; <Space> selects; <Enter> activates buttons
```

Select **other** as the location:

```
                    ┤ [!!] Select your location ├
 The selected location will be used to set your time zone and also for example to help
 select the system locale. Normally this should be the country where you live.

 This is a shortlist of locations based on the language you selected. Choose "other" if
 your location is not listed.

 Country, territory or area:

                              Antigua and Barbuda
                              Australia
                              Botswana
                              Canada
                              Hong Kong
                              India
                              Ireland
                              Israel
                              New Zealand
                              Nigeria
                              Philippines
                              Seychelles
                              Singapore
                              South Africa
                              United Kingdom
                              United States
                              Zambia
                              Zimbabwe
                              other

     <Go Back>
```
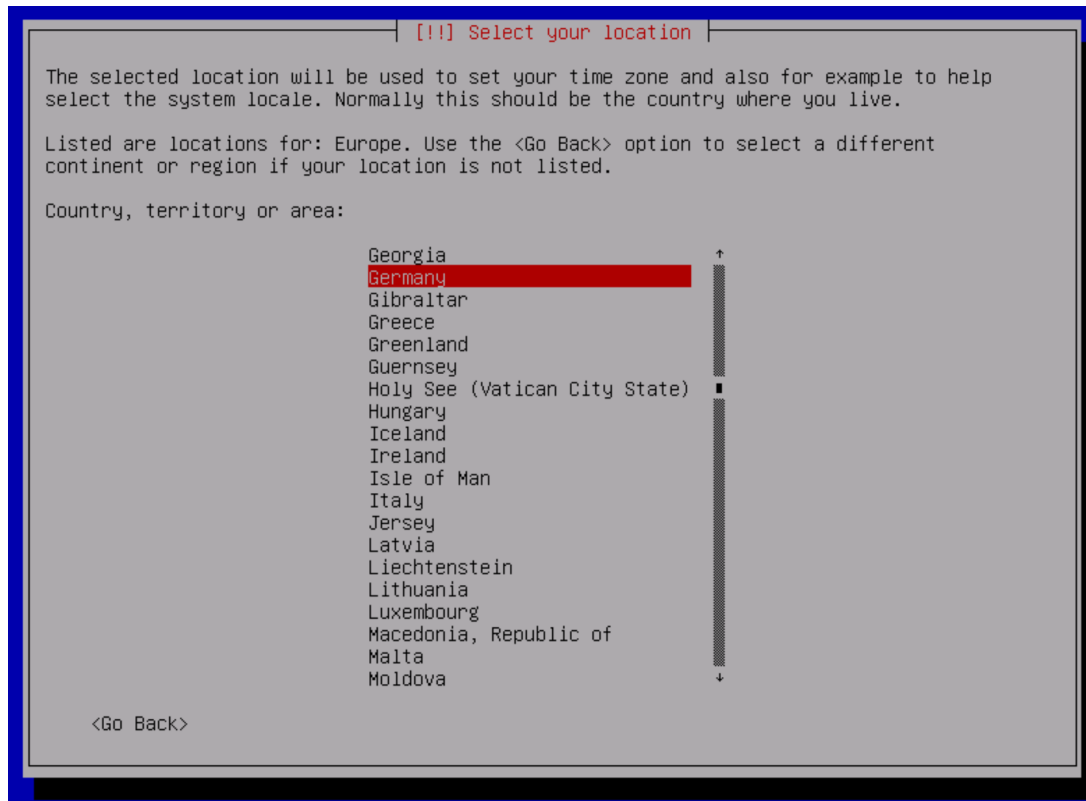
Then select the appropriate location using the next two menus - here for Europe / Germany:

┤ [!!] Select your location ├

The selected location will be used to set your time zone and also for example to help
select the system locale. Normally this should be the country where you live.

Select the continent or region to which your location belongs.

Continent or region:

                              Africa
                              Antarctica
                              Asia
                              Atlantic Ocean
                              Caribbean
                              Central America
                              Europe
                              Indian Ocean
                              North America
                              Oceania
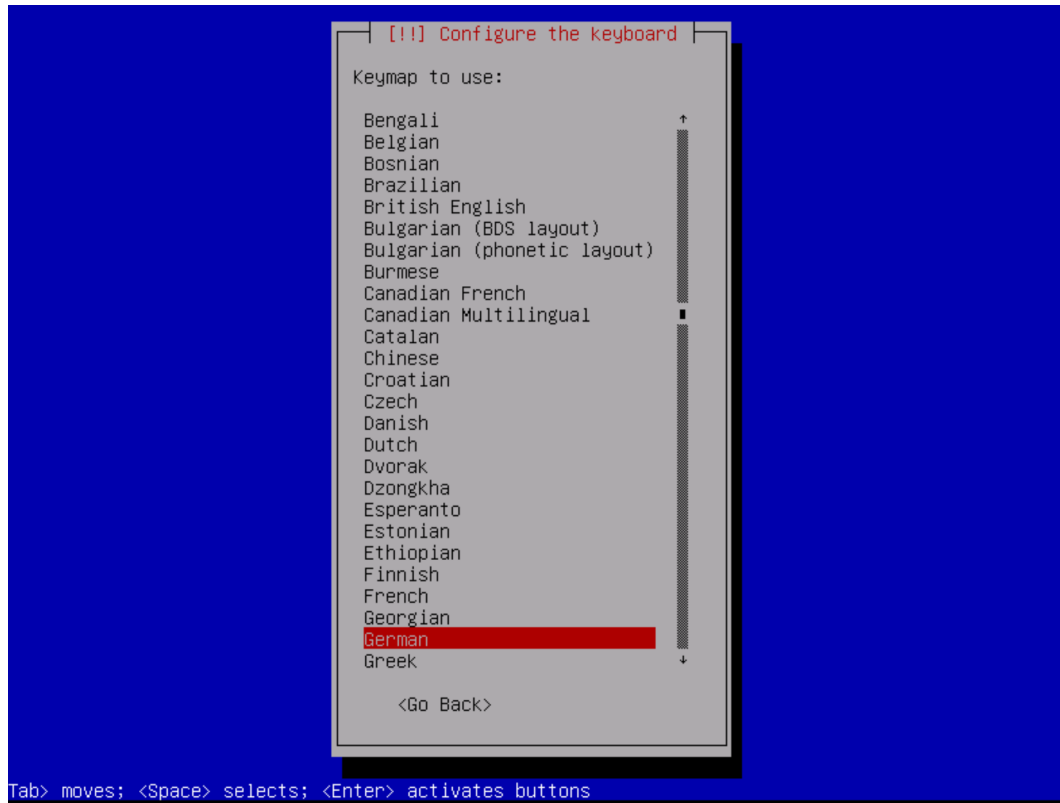   South America
                              other

      <Go Back>

```
┌─────────────────────┤ [!!] Select your location ├─────────────────────┐
│                                                                        │
│ The selected location will be used to set your time zone and also for example to help │
│ select the system locale. Normally this should be the country where you live.          │
│                                                                        │
│ Listed are locations for: Europe. Use the <Go Back> option to select a different       │
│ continent or region if your location is not listed.                    │
│                                                                        │
│ Country, territory or area:                                            │
│                                                                        │
│                    Georgia                                  ↑           │
│                    Germany                                              │
│                    Gibraltar                                           │
│                    Greece                                              │
│                    Greenland                                           │
│                    Guernsey                                            │
│                    Holy See (Vatican City State)            ▪          │
│                    Hungary                                             │
│                    Iceland                                            │
│                    Ireland                                            │
│                    Isle of Man                                        │
│                    Italy                                              │
│                    Jersey                                             │
│                    Latvia                                             │
│                    Liechtenstein                                      │
│                    Lithuania                                          │
│                    Luxembourg                                         │
│                    Macedonia, Republic of                             │
│                    Malta                                              │
│                    Moldova                                  ↓          │
│                                                                        │
│       <Go Back>                                                        │
│                                                                        │
└────────────────────────────────────────────────────────────────────────┘
```

Then select **en_US.UTF-8** for the locale settings:

```
┤ [!] Configure locales ├

There is no locale defined for the combination of language and country you have selected.
You can now select your preference from the locales available for the selected language.
The locale that will be used is listed in the second column.

Country to base default locale settings on:

                    Antigua and Barbuda  -  en_AG
                    Australia            -  en_AU.UTF-8
                    Botswana             -  en_BW.UTF-8
                    Canada               -  en_CA.UTF-8
                    Hong Kong            -  en_HK.UTF-8
                    India                -  en_IN
                    Ireland              -  en_IE.UTF-8
                    Israel               -  en_IL
                    New Zealand          -  en_NZ.UTF-8
                    Nigeria              -  en_NG
                    Philippines          -  en_PH.UTF-8
                    Seychelles           -  en_SC.UTF-8
                    Singapore            -  en_SG.UTF-8
                    South Africa         -  en_ZA.UTF-8
                    United Kingdom       -  en_GB.UTF-8
                    United States        -  en_US.UTF-8
                    Zambia               -  en_ZM
                    Zimbabwe             -  en_ZW.UTF-8

        <Go Back>
```

Select the appropriate keyboard layout (in this example **German**):

```
                ┤ [!!] Configure the keyboard ├

  Keymap to use:

    Bengali                                  ↑
    Belgian
    Bosnian
    Brazilian
    British English
    Bulgarian (BDS layout)
    Bulgarian (phonetic layout)
    Burmese
    Canadian French
    Canadian Multilingual                   ▪
    Catalan
    Chinese
    Croatian
    Czech
    Danish
    Dutch
    Dvorak
    Dzongkha
    Esperanto
    Estonian
    Ethiopian
    Finnish
    French
    Georgian
    German
    Greek                                    ↓

            <Go Back>

 Tab> moves; <Space> selects; <Enter> activates buttons
```

Next, the installer will try to configure the network with DHCP. If this is not possible, select **Configure network manually:**

```
┤ [!!] Configure the network ├

From here you can choose to retry DHCP network autoconfiguration (which may succeed if
your DHCP server takes a long time to respond) or to configure the network manually. Some
DHCP servers require a DHCP hostname to be sent by the client, so you can also choose to
retry DHCP network autoconfiguration with a hostname that you provide.

Network configuration method:

            Retry network autoconfiguration
            Retry network autoconfiguration with a DHCP hostname
            Configure network manually

            Do not configure the network at this time

    <Go Back>
```

Then enter the appropriate details:

```
┤ [!!] Configure the network ├

The IP address is unique to your computer and may be:

 * four numbers separated by periods (IPv4);
 * blocks of hexadecimal characters separated by colons (IPv6).

You can also optionally append a CIDR netmask (such as "/24").

If you don't know what to use here, consult your network administrator.

IP address:

10.42.22.31_____

    <Go Back>                                          <Continue>
```

```
┤ [!!] Configure the network ├

The netmask is used to determine which machines are local to your network.  Consult your
network administrator if you do not know the value.  The netmask should be entered as
four numbers separated by periods.

Netmask:

255.255.255.0_____

    <Go Back>                                          <Continue>
```

```
┤ [!!] Configure the network ├

The gateway is an IP address (four numbers separated by periods) that indicates the
gateway router, also known as the default router.  All traffic that goes outside your LAN
(for instance, to the Internet) is sent through this router.  In rare circumstances, you
may have no router; in that case, you can leave this blank.  If you don't know the proper
answer to this question, consult your network administrator.

Gateway:

10.42.22.1_____

    <Go Back>                                                          <Continue>
```



```
┤ [!!] Configure the network ├

The name servers are used to look up host names on the network. Please enter the IP
addresses (not host names) of up to 3 name servers, separated by spaces. Do not use
commas. The first name server in the list will be the first to be queried. If you don't
want to use any name server, just leave this field blank.

Name server addresses:

10.42.16.1_____

    <Go Back>                                                          <Continue>
```

Enter the **fully qualified** host name:

```
                    ┤ [!] Configure the network ├
  Please enter the hostname for this system.

  The hostname is a single word that identifies your system to the network. If you don't
  know what your hostname should be, consult your network administrator. If you are setting
  up your own home network, you can make something up here.

  Hostname:

  acd-dbm-test31.jtel.de_____

      <Go Back>                                                              <Continue>
```

Next, enter and repeat the **root password**.

[!!] Set up users and passwords

You need to set a password for 'root', the system administrative account. A malicious or unqualified user with root access can have disastrous results, so you should take care to choose a root password that is not easy to guess. It should not be a word found in dictionaries, or a word that could be easily associated with you.

A good password will contain a mixture of letters, numbers and punctuation and should be changed at regular intervals.

The root user should not have an empty password. If you leave this empty, the root account will be disabled and the system's initial user account will be given the power to become root using the "sudo" command.

Note that you will not be able to see the password as you type it.

Root password:

_____

[ ] Show Password in Clear

    <Go Back>   <Continue>

[!!] Set up users and passwords

Please enter the same root password again to verify that you have typed it correctly.

Re-enter password to verify:

_____
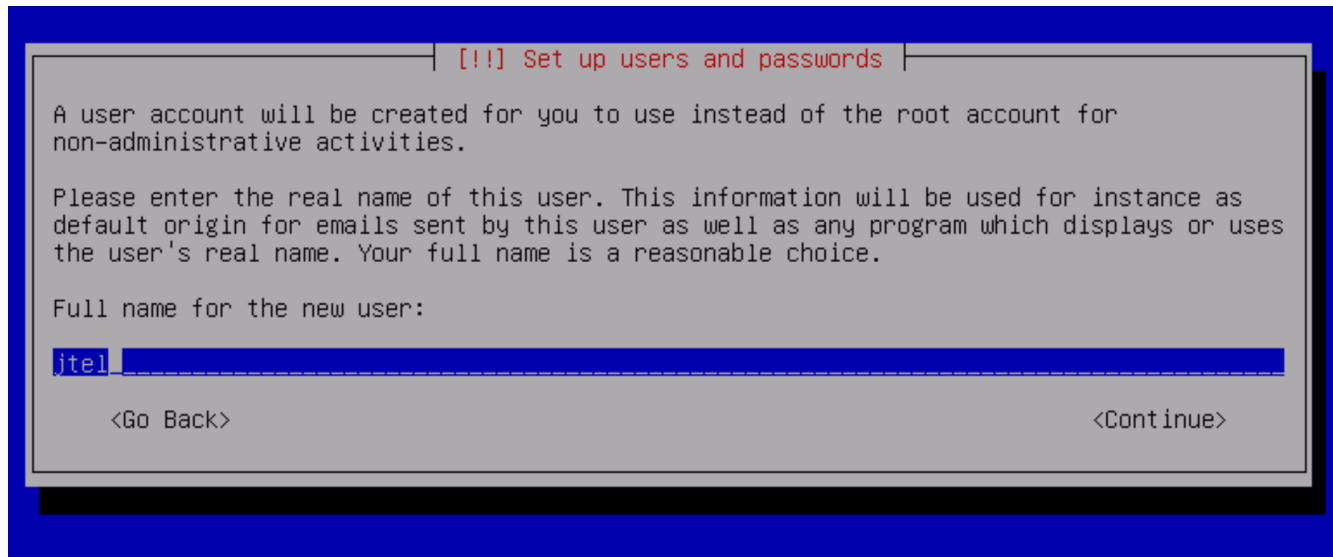
[ ] Show Password in Clear

    <Go Back>   <Continue>

Next, create a **jtel** user:

Enter the password for the **jtel** user:

```
┌─────────────────┤ [!!] Set up users and passwords ├─────────────────┐
│                                                                        │
│ A good password will contain a mixture of letters, numbers and punctuation and should be │
│ changed at regular intervals.                                          │
│                                                                        │
│ Choose a password for the new user:                                    │
│                                                                        │
│ **********_____     │
│                                                                        │
│ [ ] Show Password in Clear                                             │
│                                                                        │
│      <Go Back>                                      <Continue>          │
│                                                                        │
└────────────────────────────────────────────────────────────────────────┘
```



```
┌─────────────────┤ [!!] Set up users and passwords ├─────────────────┐
│                                                                        │
│ Please enter the same user password again to verify you have typed it correctly. │
│                                                                        │
│ Re-enter password to verify:                                           │
│                                                                        │
│ **********_____     │
│ [ ] Show Password in Clear                                             │
│                                                                        │
│      <Go Back>                                      <Continue>          │
│                                                                        │
└────────────────────────────────────────────────────────────────────────┘
```

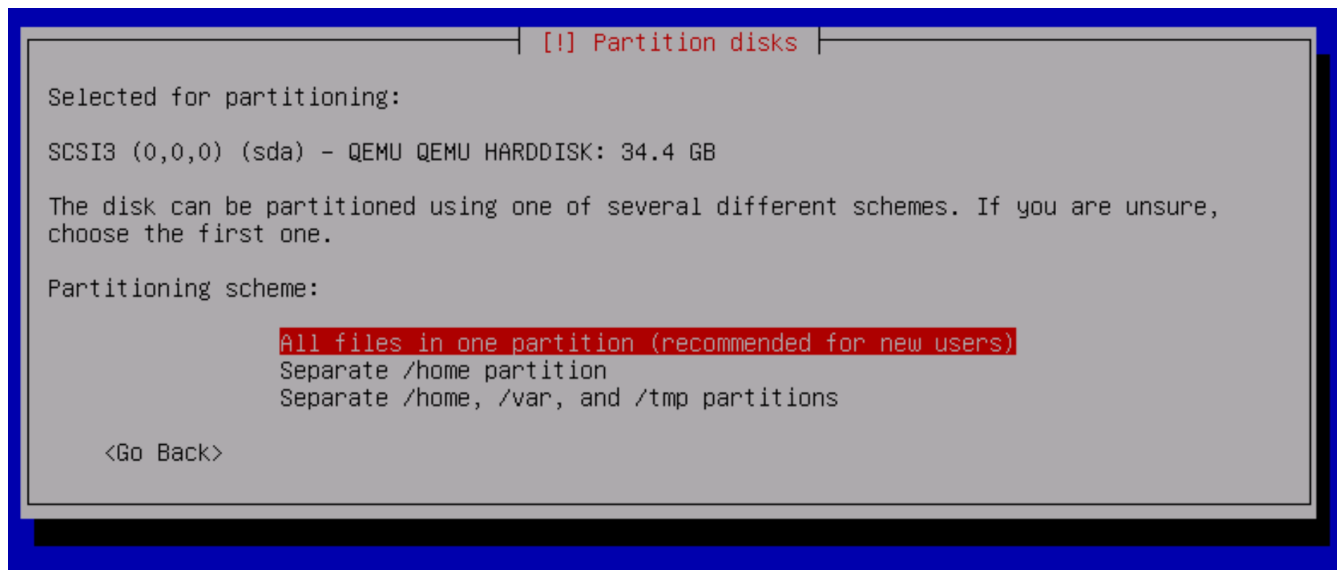For partitioning, choose **Guided - use the entire disk and set up LVM**:
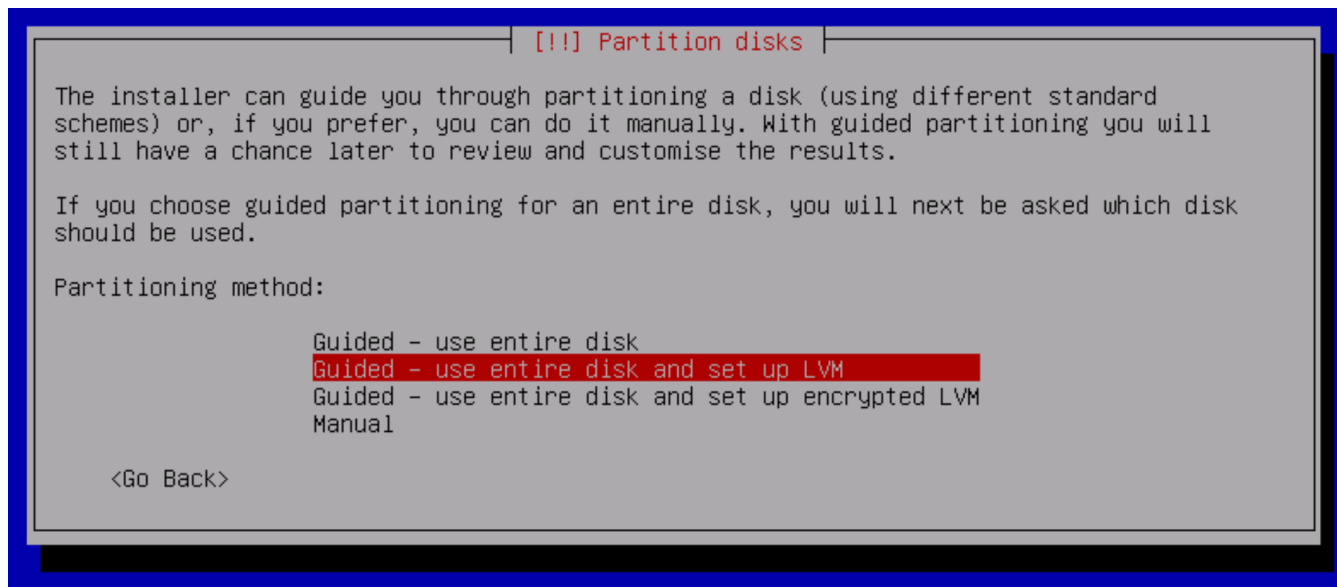
Next select the disk to partition (do not partition the data partition, if you are installing the load balancer):
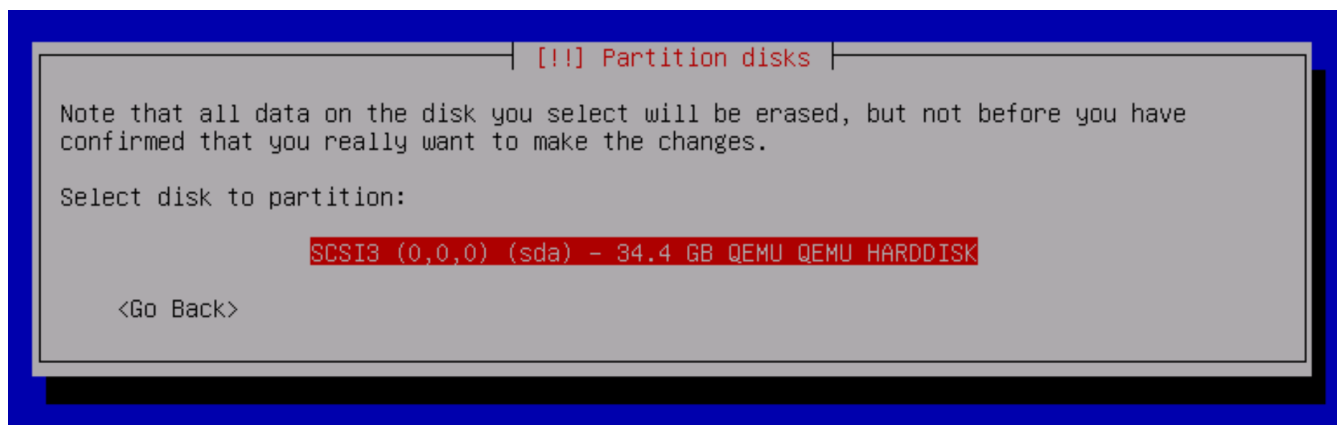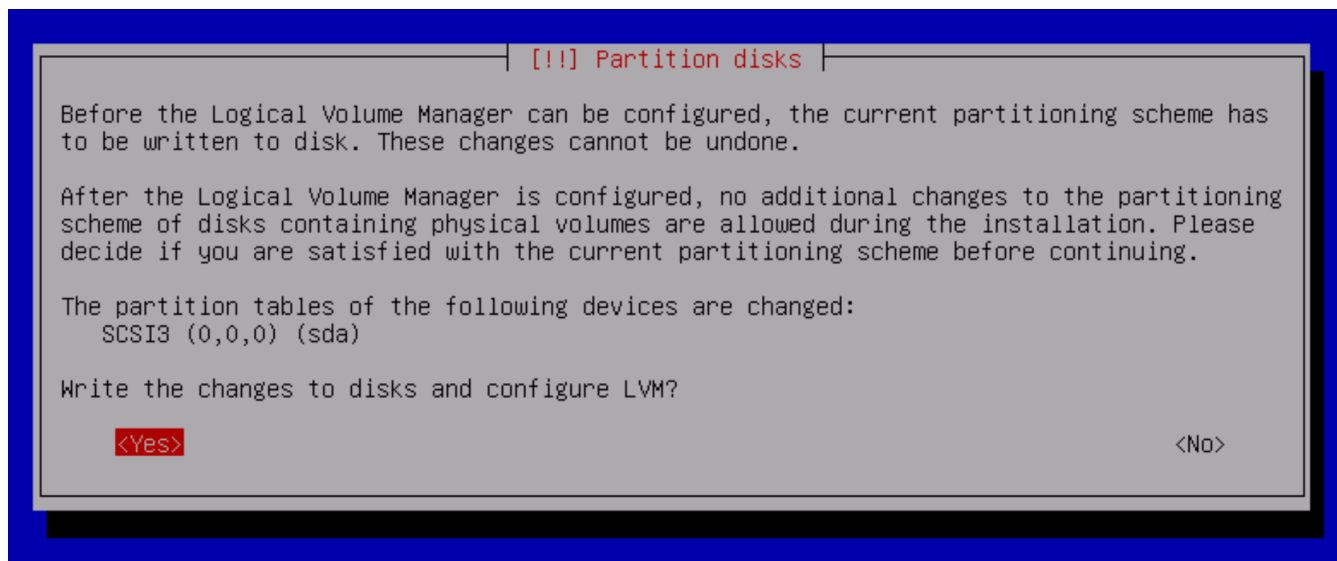

For the partition layout, select "**All files in one partition (recommended for new users)**". It will be easy enough to move things to extra disks later if the system needs it, and for most jtel systems this will not be necessary.

```
                    ┤ [!] Partition disks ├

Selected for partitioning:

SCSI3 (0,0,0) (sda) - QEMU QEMU HARDDISK: 34.4 GB

The disk can be partitioned using one of several different schemes. If you are unsure,
choose the first one.

Partitioning scheme:

                All files in one partition (recommended for new users)
                Separate /home partition
                Separate /home, /var, and /tmp partitions

    <Go Back>
```

Choose to write the changes.


```
                    ┤ [!!] Partition disks ├

Before the Logical Volume Manager can be configured, the current partitioning scheme has
to be written to disk. These changes cannot be undone.

After the Logical Volume Manager is configured, no additional changes to the partitioning
scheme of disks containing physical volumes are allowed during the installation. Please
decide if you are satisfied with the current partitioning scheme before continuing.

The partition tables of the following devices are changed:
    SCSI3 (0,0,0) (sda)

Write the changes to disks and configure LVM?

    <Yes>                                                            <No>
```

Select to use the whole volume group.

```
┤ [!] Partition disks ├

You may use the whole volume group for guided partitioning, or part of it. If you use
only part of it, or if you add more disks later, then you will be able to grow logical
volumes later using the LVM tools, so using a smaller part of the volume group at
installation time may offer more flexibility.

The minimum size of the selected partitioning recipe is 1.9 GB (or 5%); please note that
the packages you choose to install may require more space than this. The maximum
available size is 33.8 GB.

Hint: "max" can be used as a shortcut to specify the maximum size, or enter a percentage
(e.g. "20%") to use that percentage of the maximum size.

Amount of volume group to use for guided partitioning:

33.8 GB_____

        <Go Back>                                                       <Continue>
```

And select to partition the disks:

```
┤ [!!] Partition disks ├

If you continue, the changes listed below will be written to the disks. Otherwise, you
will be able to make further changes manually.

The partition tables of the following devices are changed:
    LVM VG acd-dbm-test31-vg, LV root
    LVM VG acd-dbm-test31-vg, LV swap_1
    SCSI3 (0,0,0) (sda)

The following partitions are going to be formatted:
    LVM VG acd-dbm-test31-vg, LV root as ext4
    LVM VG acd-dbm-test31-vg, LV swap_1 as swap
    partition #1 of SCSI3 (0,0,0) (sda) as ext2

Write the changes to disks?

    <Yes>                                                              <No>
```

The installation will now proceed:

```
┤ Installing the base system ├

                              36%

Unpacking apt...
```
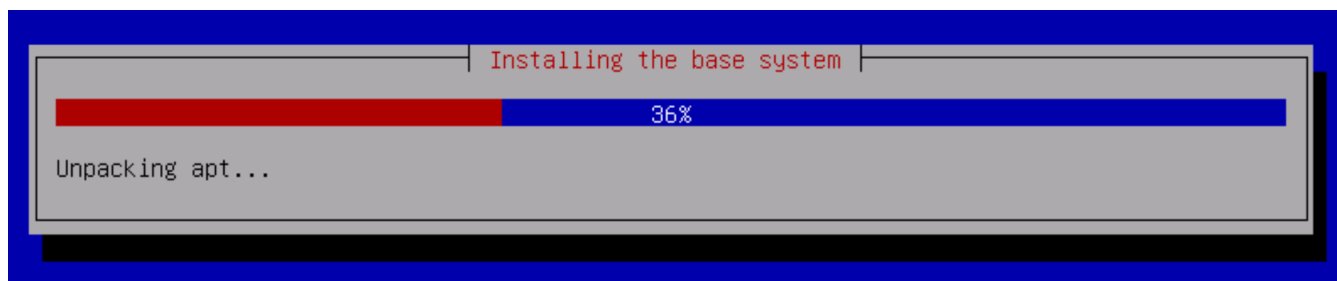
After installing a few things, it will ask if you want to scan another CD or DVD. Say **No**.

```
┤ [!] Configure the package manager ├

Your installation CD or DVD has been scanned; its label is:

Debian GNU/Linux 10.7.0 _Buster_ - Official amd64 NETINST 20201205-11:16

You now have the option to scan additional CDs or DVDs for use by the package manager
(apt). Normally these should be from the same set as the installation CD/DVD. If you do
not have any additional CDs or DVDs available, this step can just be skipped.

If you wish to scan another CD or DVD, please insert it now.

Scan another CD or DVD?

        <Go Back>                                          <Yes>      <No>
```

Select an appropriate country for your repo mirrors:

```
┌──────┤ [!] Configure the package manager ├──────┐

  The goal is to find a mirror of the Debian archive that is close to you on the network --
  be aware that nearby countries, or even your own, may not be the best choice.

  Debian archive mirror country:

                          enter information manually   ↑
                          Argentina
                          Armenia
                          Australia
                          Austria
                          Belarus
                          Belgium
                          Brazil                       ■
                          Bulgaria
                          Cambodia
                          Canada
                          Chile
                          China
                          Costa Rica
                          Croatia
                          Czechia
                          Denmark
                          El Salvador
                          Estonia
                          Finland
                          France
                          Georgia
                          Germany                      ↓

       <Go Back>
```

```
┌─────────────────┤ [!] Configure the package manager ├─────────────────┐
│                                                                          │
│  Please select a Debian archive mirror. You should use a mirror in your country or region │
│  if you do not know which mirror has the best Internet connection to you. │
│                                                                          │
│  Usually, deb.debian.org is a good choice.                               │
│                                                                          │
│  Debian archive mirror:                                                  │
│                                                                          │
│                        ftp.de.debian.org                    ↑            │
│                        debian.inf.tu-dresden.de                          │
│                        ftp2.de.debian.org                                │
│                        ftp.halifax.rwth-aachen.de                        │
│                        mirror.eu.oneandone.net             ▪            │
│                        mirror.de.leaseweb.net                            │
│                        ftp.uni-kl.de                                     │
│                        deb.debian.org                                    │
│                        debian-archive.trafficmanager.net                 │
│                        debian.tu-bs.de                                   │
│                        packages.hs-regensburg.de                         │
│                        debian.mirror.lrz.de                              │
│                        debian.mirror.iphh.net                            │
│                        mirror.united-gameserver.de                       │
│                        ftp.plusline.net                                  │
│                        debian.charite.de                                 │
│                        mirror.netcologne.de                              │
│                        artfiles.org                                      │
│                        debian.intergenia.de                              │
│                        ftp.hosteurope.de                                 │
│                        ftp.gwdg.de                          ↓            │
│                                                                          │
│       <Go Back>                                                          │
│                                                                          │
└──────────────────────────────────────────────────────────────────────┘
```

Select Continue when it asks you to configure an http proxy:
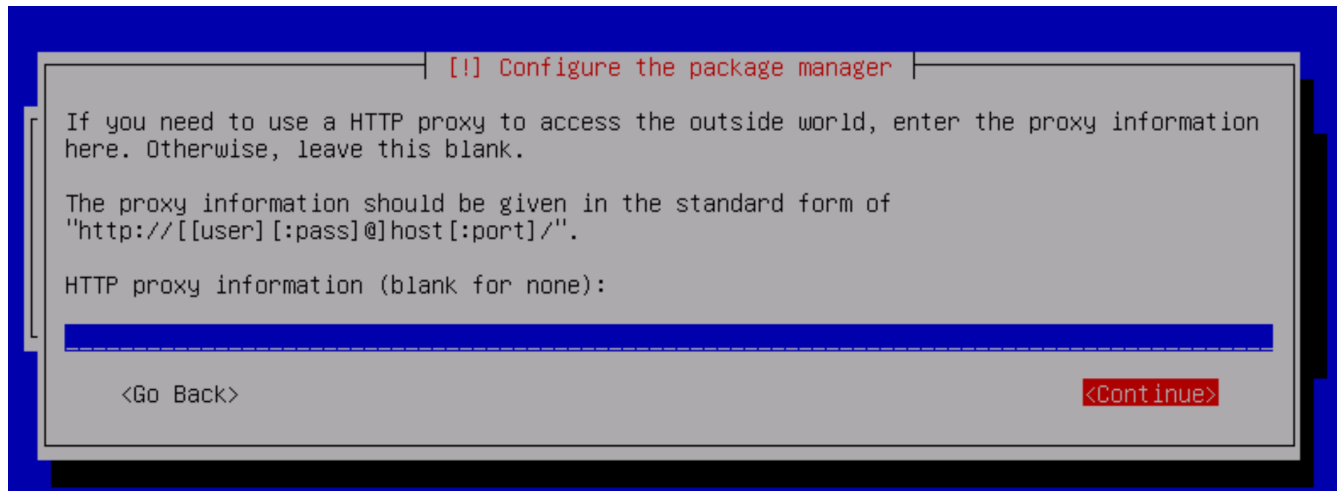
It will then upgrade the software.

Next it will ask for anonymouse usage statistics. Select whatever you feel comfortable with.
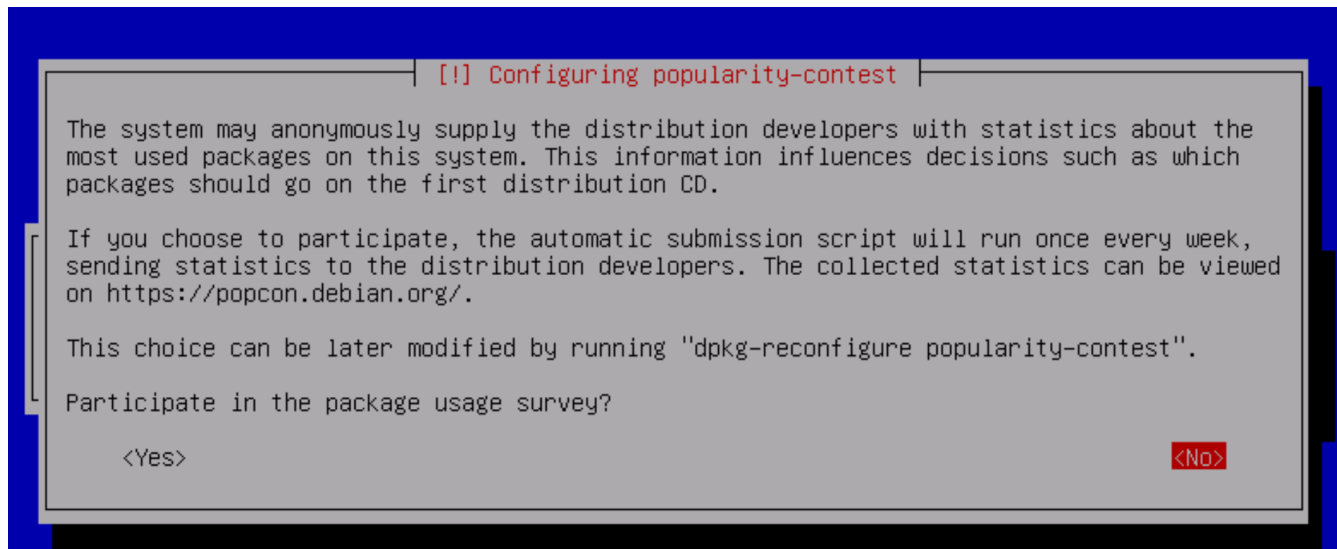
Next under software selection, it will ask what to install. Select only **SSH server** and **standard system utilities**:

Now, it will complete some more steps. When it asks whether to install GRUB as the bootloader, say **yes**:

```
┤ [!] Install the GRUB boot loader on a hard disk ├

It seems that this new installation is the only operating system on this computer. If so,
it should be safe to install the GRUB boot loader to the master boot record of your first
hard drive.

Warning: If the installer failed to detect another operating system that is present on
your computer, modifying the master boot record will make that operating system
temporarily unbootable, though GRUB can be manually configured later to boot it.

Install the GRUB boot loader to the master boot record?

    <Go Back>                                              <Yes>      <No>
```

Enter **/dev/sda** for the location of the boot loader:

Finally, it will complete the installation. Select Continue to reboot, and you should be able to ssh into the system.

Final Steps

- Make sure you can ssh into the machine as root
- Make sure the network configuration is correct, and that you can, for example, ping www.google.de
- Provide jtel with:
    - The IP Address of the machine
    - The jtel password
    - The root password

If jtel is performing the installation, we will take over from here.