

Debian Edu / Skolelinux Terra 3.0 Release Manual

December 12, 2007

Debian Edu / Skolelinux Terra 3.0 Release Manual

Contents

1	Release manual for Debian Edu etch 3.0 Codename "Terra"	4
2	About Debian Edu and Skolelinux	4
3	Architecture	5
3.1	Network	5
3.2	Services	6
3.2.1	Thin client services	7
3.3	Administration	7
3.4	Installation	7
3.5	File system access configuration	8
3.6	random notes	8
4	Features	9
4.1	New features in the "3.0 Terra" release 2007-07-22	9
4.2	Features in 2.0 release 2006-03-14	9
4.3	Features in "1.0 Venus" release 2004-06-20	10
4.4	More information on older releases	10
5	Requirements	10
5.1	Network requirements	11
5.1.1	Internet-Router	11
6	Installation	11
6.1	Where to find more information	11
6.2	Download an installation media for Debian Edu etch 3.0r0	11
6.2.1	DVDs for i386, amd64 and powerpc	11
6.3	Request a CD/DVD by mail	12
6.4	Installation from CD	12
6.5	Installation options	12
6.5.1	A note on manual partitioning	13
6.5.2	A note on notebooks	14
6.5.3	A note on DVD installs	14
6.6	Screenshot tour through an i386 main-server + thin-client-server installation	14
7	Getting started	27
7.1	Services running on the main server	28
7.1.1	Web based management, using lwat	28
7.1.2	User Management with lwat	29
7.1.2.1	Adding users	29
7.1.2.2	Search and delete Users	31
7.1.3	Group Management with lwat	32
7.1.4	Machine Management with lwat	32
7.1.4.1	Assign static ip addresses with dhcp	33
7.1.4.2	More lwat documentation	34
7.1.5	Printer Managment	34
7.1.6	Clock synchronization	34
7.1.7	Extend full partitions	34
8	Maintainance	34
8.1	Updating the software	34
8.2	Backup Management	35
8.3	Server Monitoring	35
8.3.1	Munin	35
8.3.2	Nagios	35
8.3.3	Sitesummary	35

9 Upgrades	35
9.1 Upgrades from Debian Edu sarge	36
9.1.1 Partitioning scheme changed	36
9.1.2 Prepare the system	36
9.1.3 Answers to debconf questions raising during upgrade	37
9.1.4 Problem upgrading bind	38
9.1.5 Samba groupmaps handling changed	39
9.2 Upgrades from older Debian Edu / Skolelinux installations	39
10 HowTo	39
11 HowTos for general administration	39
11.1 Installing single service machines for spreading the load from main-server	39
11.2 Tracking /etc/ using the svk version control system	39
11.2.1 Usage examples	40
11.2.2 For those who upgraded from sarge/woody	40
11.3 Resize Partitions	40
11.3.1 Logical Volumn Management	41
11.4 Using volatile.debian.org	41
11.4.1 What is debian-volatile?	41
11.4.2 How to use volatile	41
11.5 Using backports.org	41
11.6 Java	42
11.7 HowTos from wiki.debian.org	42
12 HowTos for the desktop	42
12.1 KDE Kiosk mode	42
12.2 Modifying the kdm login screen	43
12.3 Flash	43
12.3.1 Sound with Flash in thin clients	43
12.4 Other useful plugins	43
12.5 Playing DVDs	44
13 HowTos for networked clients	44
13.1 Thin Clients vs Diskless workstations	44
13.2 LTSP in detail	44
13.2.1 lts.conf	44
13.2.2 Load balancing LTSP servers	44
13.2.3 Sound with LTSP clients	44
13.3 Connecting Windows machines to the network / Windows integration	45
13.3.1 Joining the domain	45
13.3.1.1 User groups in Windows	45
13.3.2 XP home	45
13.3.3 Managing roaming profiles	46
13.3.3.1 Using machine policies	46
13.3.3.2 Using global policies	46
13.3.3.3 Editing Windows registry	46
13.3.4 Redirecting parts of profile	47
13.3.4.1 Using machine policies	47
13.3.4.2 Using global policies	47
13.3.5 Avoiding roaming profiles	47
13.3.5.1 Using a local policy	47
13.3.5.2 Using global policies	47
13.3.5.3 altering samba config	47
13.4 Remote Desktops with RDP, VNC, NX or Citrix	48
13.5 HowTos from wiki.debian.org	48

14	HowTos for teaching and learning	48
14.1	moodle	48
14.2	Monitoring pupils	48
14.3	Restricting pupils network access	48
14.4	Installing swi-prolog on etch	48
14.5	HowTos from wiki.debian.org	49
15	Contribute	49
15.1	Let us know you exist	49
15.2	Contribute locally	49
15.3	Contribute globally	50
15.4	Documentation writers and translators	50
16	Support	50
16.1	Volunteer based support	50
16.1.1	in English	50
16.1.2	in Norwegian	50
16.1.3	in German	50
16.1.4	in French	50
16.1.5	in Spanish	51
16.2	Professional support	51
17	Copyright and authors	51
18	Translation copyright and authors	51
19	Translations of this document	51
19.1	HowTo translate this document	51
20	Appendix A - The GNU Public License	52
20.1	Release manual for Debian Edu etch 3.0 Codename "Terra"	52
20.2	GNU GENERAL PUBLIC LICENSE	52
20.3	TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION	52
20.4	END OF TERMS AND CONDITIONS	55
21	Appendix B - about Debian Edu Live CD/DVDs	55
21.1	Features of the Standalone image	55
21.1.1	Activating translations and regional support	55
21.1.2	Stuff to know	55
21.1.3	Known issues with the image	55
21.1.4	Download	55

1 Release manual for Debian Edu etch 3.0 Codename "Terra"

This is the (*still incomplete*) release manual for the Debian Edu etch 3.0 release.

This document was put into the `debian-edu-doc` package on 2007-12-04.

The version at <http://wiki.skolelinux.no/DebianEdu/Documentation/Etch> is a wiki and updated frequently.

[Translations](#) are part of the `debian-edu-doc` package, which can be [installed on a webserver](#).

2 About Debian Edu and Skolelinux

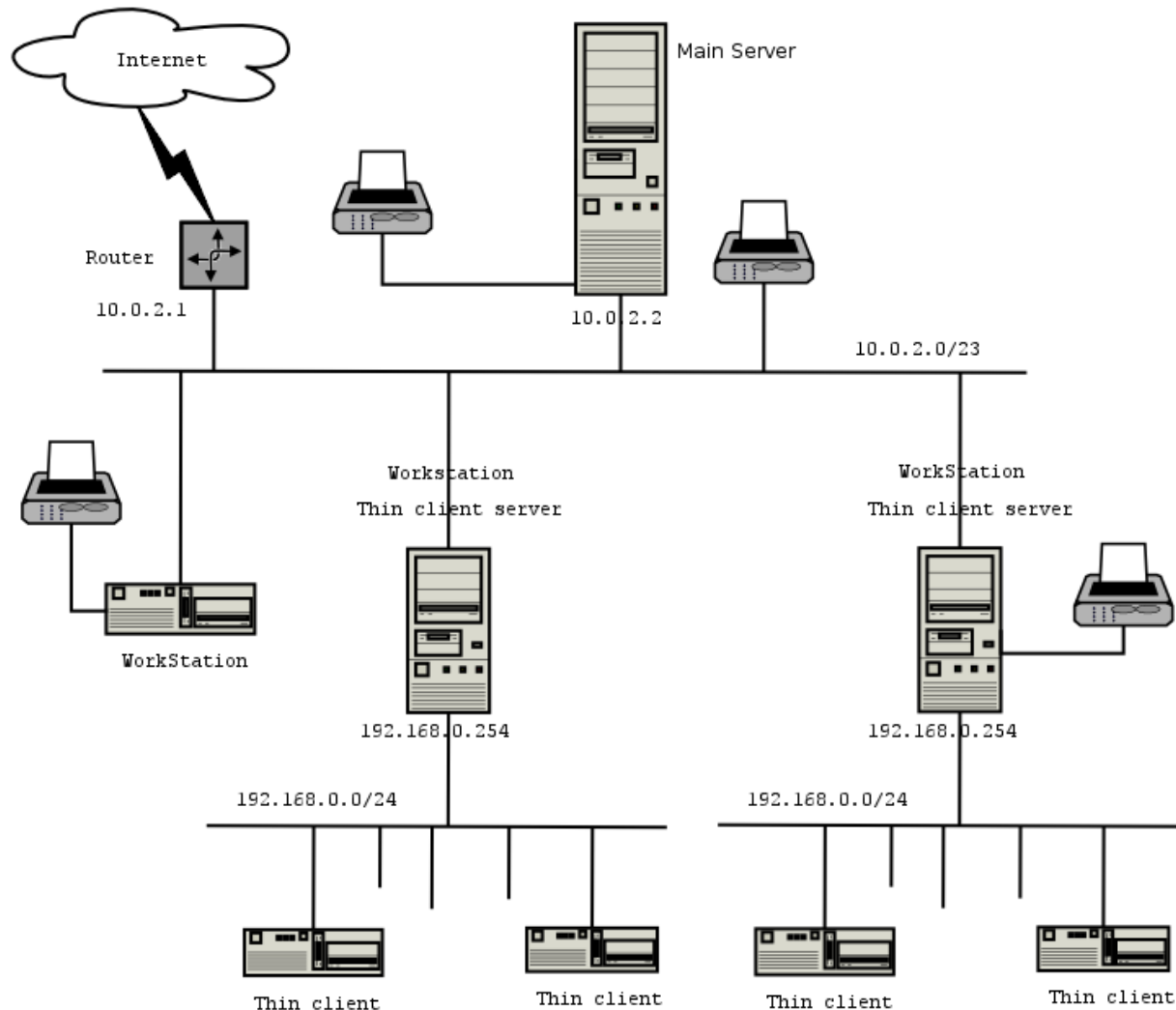
Skolelinux is the Debian Edu project's [Custom Debian Distribution](#) (CDD) in development. What this means is that Skolelinux is a version of Debian whose out-of-the box environment gives you a completely configured school-network. In Norway, where Skolelinux was started, the main target group is schools serving the 6-16 years age bracket.

The system is in use in several countries around the world, with most installations in Norway, Germany and France.

3 Architecture

This section of the document describes the network architecture and services provided by a Skolelinux installation.

3.1 Network



(The `debian-edu-doc` source package contains this image as a `dia` file.)

The figure is a sketch of the assumed network topology. The default setup of a Skolelinux network assumes that there is one (and only one) main-server, while allowing the inclusion of both normal workstations and thin-client-servers (with associated thin-clients). The number of workstations can be as large or small as you want (starting from none to a lot). The same goes for the thin-client servers, each of which is on a separate network so that the traffic between the thin-clients and the thin-client server doesn't affect the rest of the network services.

The reason that there can only be one main server in each school network is that the main server provides DHCP, and there can be only one machine doing so in each network. It is possible to move services from the main server to other machines by setting up the service on another machine, and subsequently updating the DNS-configuration, pointing the DNS alias for that service to the right computer.

In order to simplify the standard setup of Skolelinux, the Internet connection runs over a separate router. It is possible to set up Debian with both a modem and an ISDN connection, however no attempt is made to make such a setup work out of the box for Skolelinux (the setup needed to adjust the default situation to this should be documented separately).

3.2 Services

With the exception of the control of the thin-clients, all services are initially set up on one central computer (the main server). For performance reasons, the thin-client-server should be a separate machine (though it is possible to install both the main server and thin-client server profiles on the same machine). All services are allocated a dedicated DNS-name and are offered exclusively over IPv4. The allocated DNS name makes it easy to move individual services from the main-server to a different machine, by simply stopping the service on the main-server, and changing the DNS configuration to point to the new location of the service (which should be setup on that machine first of course).

To ensure security all connections where passwords are transmitted over the network are encrypted, so no passwords are sent over the network as plain text.

Below is a list of the services that are set up by default in a Skolelinux network, with the DNS name of each service given in square brackets. Where possible the DNS name corresponds to the service name in `/etc/services`, where this is not possible the common name of the service is used as the DNS name. All configuration files will, if possible, refer to the service by name (without the domain name) thus making it easy for schools to change either their domain (if they have an own DNS domain), or their IP address.

- Centralized Logging [syslog]
- DNS (Bind) [domain]
- Automatic Network Configuration of Machines (DHCP) [bootps]
- Clock Synchronization (NTP) [ntp]
- Home Directories via Network File System (SMB/NFS) [homes]
- Electronic Post Office [postoffice]
- Directory Service (OpenLDAP) [ldap]
- User Administration (lwat)
- Web Server (Apache/PHP) [www]
- Central Backup (sl-backup, slbackup-php) [backup]
- Web Cache / Proxy (Squid) [webcache]
- Printing (CUPS) [ipp]
- Remote Login (OpenSSH) [ssh]
- Automatic Configuration [cfengine]
- Thin Client Server/s (LTSP) [ltspserver\#]
- Machine and Service Surveillance with Error Reporting, plus Status and History on the Web. Error Reporting by E-mail (munin,nagios and site-summary)

Each user stores his personal files in his home folder which is made available by the server. Home folders are accessible from all machines, giving users access to the same files regardless of which machine they are using. The server is operating system agnostic in offering access using NFS for Unix Clients, SMB for Windows and Macintosh clients.

By default e-mail is set up for local delivery (i.e. within the school) only, though e-mail delivery to the wider Internet may be set up if the school has a fixed Internet-connection. Mailing lists are set up based on the user database, giving each class their own mailing list. Clients are set up to deliver mail to the server (using 'smarthost'), and users can access their personal mail through either POP3 or IMAP.

All services are accessible using the same username and password, thanks to the central user database for authentication and authorization.

To increase performance on frequently accessed sites a web proxy that caches files locally (Squid) is used. In conjunction with blocking web-traffic in the router this also enables control of Internet access on individual machines.

Network configuration on the clients is done automatically using DHCP. Normal clients are allocated IP addresses in the private subnet 10.0.2.0/23, while thin clients are connected to the corresponding thin-client-server via the separate subnet 192.168.0.0/24 (this to ensure that the network traffic of the thin clients doesn't interfere with the rest of the network services).

Centralized logging is set up so that all machines send their syslog messages to the server. The syslog service is set up so that it only accepts incoming messages from the local network.

By default the DNS server is set up with a domain for internal use only (*.intern), until a real ("external") DNS domain can be set up. The DNS server is set up as caching DNS server so that all machines on the network can use it as the main DNS Server.

Pupils and teachers have the possibility to publish websites. The web server provides mechanisms for authenticating users, and for limiting access to individual pages and subdirectories to certain users and groups. Users will have the possibility to create dynamic web pages, as the web server will be programmable on the server side.

Information on users and machines can be changed in one central location, and is made accessible to all computers on the network automatically. To achieve this a centralized directory server is set up. The directory will have information on users, user groups, machines, and groups of machines. To avoid user confusion there won't be any difference between file groups, mailing lists, and network groups. This implies that groups of machines which have to be network groups, have the same namespace as user groups and mailing lists.

Administration of services and users will by and large be via web, and follow established standards, functioning well in the web browsers which are part of Skolelinux. The delegation of certain tasks to individual users or user groups will be made possible by the administration systems.

In order to avoid certain problems with NFS, and to make it simpler to debug problems, time needs to be synchronized on the different machines. To achieve this the Skolelinux server is set up as a local Network Time Protocol (NTP) server, and all workstations and clients are set up to synchronize their clock with the server. The server itself should synchronize its clock via NTP against machines on the Internet, thus ensuring the whole network has the correct time.

Printers are connected where convenient, either directly onto the network, or connected to a server, workstation or thin-client-server. Access to printers can be controlled for individual users according to the groups they belong to, this will be achieved by using quota and access control for printers.

3.2.1 Thin client services

A thin client setup enables a ordinary PC to function as an (X-)terminal. This means that that machine boots from a diskette or directly from the server using network-PROM without using the local client hard drive. The thin client setup used is that of the Linux Terminal Server Project (LTSP).

Thin clients are a good way to make use of older, weaker machines as they effectively run all programs on the LTSP-Server. This works as follows: The service uses DHCP and TFTP to connect to the network and boot from the network. Next, the file system is mounted via NFS from the LTSP-server, and finally X11 is started and connected to the same LTSP-server by XDMCP, thus ensuring that all programs are run on the LTSP-server.

The thin client server is set up to receive syslog from the thin clients, and forward these messages to the central syslog recipient. (Oops, the thin clients don't have unique names across LTSP servers. How can we identify which client is logged onto what on the central server?)

3.3 Administration

All the linux machines that are installed by means of a Skolelinux CD or DVD will be administrable from a central computer, most likely the server. It will be possible to login to all machines by ssh, and thereby have full access to the machines

We use cfengine to edit configuration files. These files are updated from the server to the clients. In order to change the client configuration, it suffices to edit the server configuration and let the automation distribute the changes.

All user information is kept in an LDAP directory. Updates of user accounts are made against this database and is used by the clients for user authentication.

3.4 Installation

Installation is possible either from a CD or DVD.

The aim is to be able to install a server from CD/DVD, and install clients over the network by booting all other machines from the network. The DVD installation works without access to the Internet.

The installation should not ask any questions, with the exception of desired language (e.g. Norwegian Bokmal, Nynorsk, Sami) and machine profile (server, workstation, thin client server). All other configuration will be set up automatically with reasonable values, to be changed from a centrally location by the system administrator subsequent to the installation.

3.5 File system access configuration

Each Skolelinux user account is assigned a section of the file system on the file server. This section (home directory) contains the user's configuration files, documents, email and web pages. Some of the files should be set to have read access for other users on the system, some should be readable by everyone on the internet, and some should not be accessible for reading by anyone but the user.

To ensure that all disks that are used for user directories or shared directories can be uniquely named across all the computers in the installation, they can be mounted as `/skole/host/directory/`. Initially, one directory is created on the file server, `/skole/tjener/home0/`, in which all the user accounts are created. More directories may then be created when needed, to accomodate particular user groups or particular patterns of usage.

To enable shared file access control using the file groups, each user must be assigned a primary group with no other members. The name of this private group should be identical to the username. ([More info on private groups](#) is available from Redhat.) This allows for all new files created by the user to be set with full access for the file's group. Together with set-gid bit on directories and inheritance of rights, this enables controlled file sharing between the members of a file group. Therefore, the users' umask should be 00X. (If all users initially should be able to read newly created files, then X=2. If only the relevant group should be given initial read access then X=7.)

The initial access settings for newly created files is a matter of policy. They may either be set to give read access to everybody, which can later be removed by explicit user action, or they may be initially blocked, necessitating user action to make them accessible. The first approach encourages knowledge sharing, and makes the system more transparent, whereas the second method decreases the risk of unwanted spreading of sensitive information. The problem with the first solution is that it is not apparent to the users that the material they create will be accessible to all other users. This is detectable only upon inspection of other users' directories, where one can see that the files are readable. The problem with the second solution is that few people are likely to make their files accessible, even if they do not contain sensitive information and the content would be helpful to inquisitive users who want to learn how others have solved particular problems (typically configuration issues).

Suggestion: The files are initially set to be readable by all, but particular directories are created in which the content is initially blocked. This will simplify deciding whether the file should be made readable or not. Concretely, umask should be set to 002, and `~/` created with privileges 0775, `~/priv/` given 0750, and `~/pub/` given 0775. Files that should not be readable by others should be put in `~/priv/`, whereas public files will be put in `~/pub/`. Other files will initially be accessible, but may be blocked as needed.

ssh requires that the home directory can only be written to by the owner, thus the maximum access privilege for `~/` is 755.

- - access to home directories (*~/.)? - home directories - shared directories?

3.6 random notes

These are random notes concerning things which should be included in this document.

- Centralized user database with grouping and the ability to control which groups have access to which machines.
- Grouping of machines and ability to control access to network services for these groups (access blocking to Internet via squid)
- Should consider using a DNS name from RFC 2606.

This chapter was copied and pasted from <http://developer.skolelinux.no/arkitektur/arkitektur.html.en> (at that time it was Copyright © 2001, 2002, 2003, 2004 Petter Reinholdtsen < pere@hungry.com > ,

released under the GPL) - note to translators: there are translations for this document already, which you can also copy and paste. But keep those copyright notes as well.

4 Features

4.1 New features in the "3.0 Terra" release 2007-07-22

- Based on Debian 4.0 Etch released 2007-04-08.
- Graphical installer with mouse support
- Boot splash with usplash
- LSB 3.1 compatible
- Linux kernel version 2.6.18
 - Support for SATA controllers and hard disks
- X.org version 7.1.
- KDE desktop environment version 3.5.5
- OpenOffice.org version 2.0.
- LTSP5 (version 0.99debian12)
- Automatic tracking of installed machines using Sitesummary.
- Automatic configuration of munin using data from Sitesummary.
- Automatic version control of configuration files in /etc/ using svk.
- File systems sizes can be extended while the file system is mounted.
 - Support automatically extending file system based on predefined rules.
- Local Device Support on thin clients.
- New processor architectures: amd64 (fully supported) and powerpc (experimental support, installation media only boots on the newworld subarchitecture)
- Multi-architecture DVD for i386, amd64 and powerpc
- Regression: the CD-install requires Internet access during installation. Previous versions could be installed from one CD without Internet access.
- Regression: `webmin` is now removed from Debian because of problems supporting it. We've added a new web based user administration tool named `lwat`, which doesn't have the same functionality as `wlws`, the old user administration tool. But `wlws` requires `webmin`.
- Regression: `swi-prolog` is not part of etch, but was part of sarge. The [HowTo teach and learn](#) Chapter describes how to install `swi-prolog` on etch.

4.2 Features in 2.0 release 2006-03-14

- Based on Debian 3.1 Sarge released 2005-06-06.
- Linux kernel version 2.6.8.
- XFree86 version 4.3.
- KDE version 3.3.
- OpenOffice.org 1.1.

4.3 Features in "1.0 Venus" release 2004-06-20

- Based on Debian 3.0 Woody released 2002-07-19.
- Linux kernel version 2.4.26.
- XFree86 version 4.1.
- KDE version 2.2.

4.4 More information on older releases

More information on the older releases can be found at <http://developer.skolelinux.no/info/cdbygging/-news.html>.

5 Requirements

There are different ways of set up a Skolelinux solution. It can be installed on just one standalone PC or a regional wide solution at many schools operated centrally. This variety of configurations makes a huge difference on how things are set up regarding network components, servers and client machines.

- a router/gateway (IP 10.0.2.1) providing access to the internet (when using the default network architecture)
- the computers running Debian Edu / Skolelinux must have either i386, amd64 or powerpc processors.
 - On powerpc, the installation media will only boot on machines of the newworld sub-architecture, which are the systems from apple with a translucent case
- for the main server (10.0.2.2): this is the one single computer in the network which get's the `tjener`-profile installed
- workstation(s) and/or thin client (LTSP) server(s)
- thin clients clients
- thin client (LTSP) servers need two network cards when using the default network architecture:
 - `eth0` connected to the main network (10.0.2.0/23)
 - `eth1` (192.168.0.0/24) serving the thin-clients
- disk space requirements depend on profiles used, but any disk from 8 GiB will be sufficient. As usual, the bigger the better.
- for the thin clients 32 MB RAM and 133 MHz is recommended as minimum. Swap is required
- for workstations or standalone PCs 450 MHz, 256 MiB RAM and 8 GiB disc space are recommended minimum requirements
- for diskless workstations (also known as LowFat clients) 256 MB RAM and 800 MHz or more is recommended minimum requirements. Swapping over the network is automatically enabled, the swap size is 32mb, if you need more you can tune this by editing `/etc/ltsp/nbdswapd.conf` on `tjener` to set the `SIZE` variable.
- for Laptops 256 MB RAM and 450 MHz are minimum requirements

FIXME: add links to explanations of main-server and thinclient-server

A list of tested hardware is provided from <http://wiki.debian.org/DebianEdu/Hardware/>.

5.1 Network requirements

5.1.1 Internet-Router

A router/gateway, connected to the internet on the external interface and running on the IP address 10.0.2.1 on the internal interface. The router must not run a DHCP server, it can run a DNS server, though this is not needed and will not be used.

If you are looking for a i386 based solution, we recommend [IPCop](#) or [floppyfw](#) . If you need something for an embedded router we recommend [OpenWRT](#) , check here for [supported hardware](#) . If you are into BSD unix, [pfsense](#) and [m0n0wall](#) are good choices. Though since they are BSD based, we think they are better suited for more experienced administrators.

It's possible to use a different network setup, this is the [documented procedure](#) to do this. If you are not forced to do this by an existing network infrastructure, we recommend against doing so and recommend you stay with the default [network architecture](#).

6 Installation

6.1 Where to find more information

We recommend to read or at least take a look at the [release notes for Debian etch](#) before you start installing a system for production use. If you just want to give Debian Edu/Skolelinux a try, you don't have to though, it should just work 😊

Even more [information about the Debian etch release](#) is available in its installation manual.

6.2 Download an installation media for Debian Edu etch 3.0r0

6.2.1 DVDs for i386, amd64 and powerpc

The multiarch dvd ISO image is 4.4 GiB large. To download it, use either of these methods:

- `ftp://ftp.skolelinux.org/skolelinux-cd/debian-edu-etch-amd64-i386-powerpc-DVD-3.0r0.iso`
`http://ftp.skolelinux.org/skolelinux-cd/debian-edu-etch-amd64-i386-powerpc-DVD-3.0r0.iso`
`rsync ftp.skolelinux.org::skolelinux-cd/debian-edu-etch-amd64-i386-powerpc-DVD-3.0r0.iso`

or for the netinstall cd you can download for i386

- `ftp://ftp.skolelinux.org/skolelinux-cd/debian-edu-etch-i386-netinst-3.0r0.iso`
`http://ftp.skolelinux.org/skolelinux-cd/debian-edu-etch-i386-netinst-3.0r0.iso`
`rsync ftp.skolelinux.org::skolelinux-cd/debian-edu-etch-i386-netinst-3.0r0.iso`

amd64

- `ftp://ftp.skolelinux.org/skolelinux-cd/debian-edu-etch-amd64-netinst-3.0r0.iso`
`http://ftp.skolelinux.org/skolelinux-cd/debian-edu-etch-amd64-netinst-3.0r0.iso`
`rsync ftp.skolelinux.org::skolelinux-cd/debian-edu-etch-amd64-netinst-3.0r0.iso`

and powerpc (suited for the newworld sub-architecture)

- `ftp://ftp.skolelinux.org/skolelinux-cd/debian-edu-etch-powerpc-netinst--3.0r0.iso`
`http://ftp.skolelinux.org/skolelinux-cd/debian-edu-etch-powerpc-netinst--3.0r0.iso`
`rsync ftp.skolelinux.org::skolelinux-cd/debian-edu-etch-powerpc-netinst--3.0r0.iso`

The powerpc port has not been tested as much as the other architectures, though it should work just fine and has been reported to work. Still, we consider the port an experimental release of Debian Edu, which we might not be able to support as the other archs.

The source code for this release is available on a DVD image

- `ftp://ftp.skolelinux.org/skolelinux-cd/debian-edu-etch-source-DVD-3.0r0.iso`
`http://ftp.skolelinux.org/skolelinux-cd/debian-edu-etch-source-DVD-3.0r0.iso`
`rsync ftp.skolelinux.org::skolelinux-cd/debian-edu-etch-source-DVD-3.0r0.iso`

6.3 Request a CD/DVD by mail

For those without a fast internet connection, we offer to send you a CD or DVD for the cost of the CD or DVD and shipping. Just send an email to cd@skolelinux.no and we will discuss the payment details (for shipping and media) 😊 Remember to include the address you want the CD or DVD to be sent to in the email.

6.4 Installation from CD

The netinst installation will fetch some packages from the CD and the rest from the net. The amount of packages fetched from the net varies from profile to profile:

- Main server: 8 of 115 MiB downloaded.
- Main server and Thin client server: 618 of 1082 MiB downloaded.
- Main server and Workstation: 618 of 1081 MiB downloaded.
- Thin client server: 618 of 1052 MiB downloaded.
- Workstation: 618 of 1051 MiB downloaded.
- Standalone: 618 of 1020 MiB downloaded.
- Barebone: 12 of 83 MiB downloaded.

The profiles are explained below.

6.5 Installation options

When you do an Debian Edu installation you have a few options to choose. But don't be afraid, there aren't many. We have done a good job hiding the complexity of Debian during the installation and beyond. However, Debian Edu is Debian, and if you want there are more than 15000 packages to choose from and a billion configuration options. But for the majority of our users, our defaults should be fine.

- Normal graphical installation is the default on i386 and amd64. The powerpc installer does not support graphical installation. Enter `install` at the boot prompt to do an i386 text-mode install.
- The `debian-edu-expert boot` option adds the barebone profile to the profile options, and switches to manual partitioning. Enter `installgui debian-edu-expert` or `install debian-edu-expert` at the syslinux/yaboot prompt to enter expert mode.

- If you want to boot the amd64 text mode with the multiarch DVD it would be `amd64-install` . Likewise you can choose `amd64-expertgui` to get the GUI version on amd64.
- If you want to boot the i386 mode with the multiarch DVD on an amd64 machine you need to manually select `install` (text mode) or `expertgui` (graphical mode). The multiarch DVD defaults to use `amd64-installgui` on x86 64-bits machines, and `installgui` on x86 32-bits machines.
- Choose a language (for the installation and the installed system)
- Choose a time-zone
- Choose a keyboard keymap (usually the countrys default is fine)
- **Choose a profile :**
 - server
 - * This is the main server (tjener) for your school providing the following services: file, print, intranet, proxy, DNS, DHCP, LDAP, backup, nagios, simesummary, munin. All services are pre-configured and working out of the box. You must only install one main server per school!
 - workstation
 - * A computer booting from its local hard drive, and running all software and devices locally like an ordinary computer, but the user login is authenticated by the main server, where the user's files and desktop profile are stored.
 - thin client server
 - * Thin client (and diskless workstation) server. Clients with no hard drive boot and run software from this server. This computer needs two network cards, a lot of memory, and ideally more than one processor or core.
 - standalone
 - * An ordinary computer that can function without a main server, ie. doesn't need to be on the network. Includes laptops.
 - barebone
 - * This profile is only available when using the 'debian-edu-expert' boot option. It will install the base packages and configure the machine to integrate into the Debian Edu network, but without any services and applications. It is useful as a platform for single services manually moved out from the main-server.

The first 3 profiles can all be installed on the same machine. That means the main server can also be a thin client server and can be used as a workstation.

- say yes to automatic partitioning, it will destroy the data on the harddrives!
- say yes to partman
- please say yes to submit information to <http://popcon.skolelinux.org/> - though you dont have to 😊
- wait
- be happy

FIXME: this section needs a link to diskless workstation installation howto.

6.5.1 A note on manual partitioning

If you decide to do manual partitioning for the main-server, you need to make sure that the directory `/skole/tjener/home0` exists, probably by mounting a partition there. If you don't create that directory you will only be able to login as root. The reason is that the user creation system require this directory to exist to be able to create users home directories, and without a users home directory the user can not log in.

6.5.2 A note on notebooks

In principal it makes sense to either install notebooks with the workstation or with the standalone profile. But keep in mind, that the workstation profile uses LDAP for the user accounts and NFS for the home directories, so those workstations will only work while in the network where they can access the server. If you plan to use your laptop at home or on the road, choose the standalone profile.

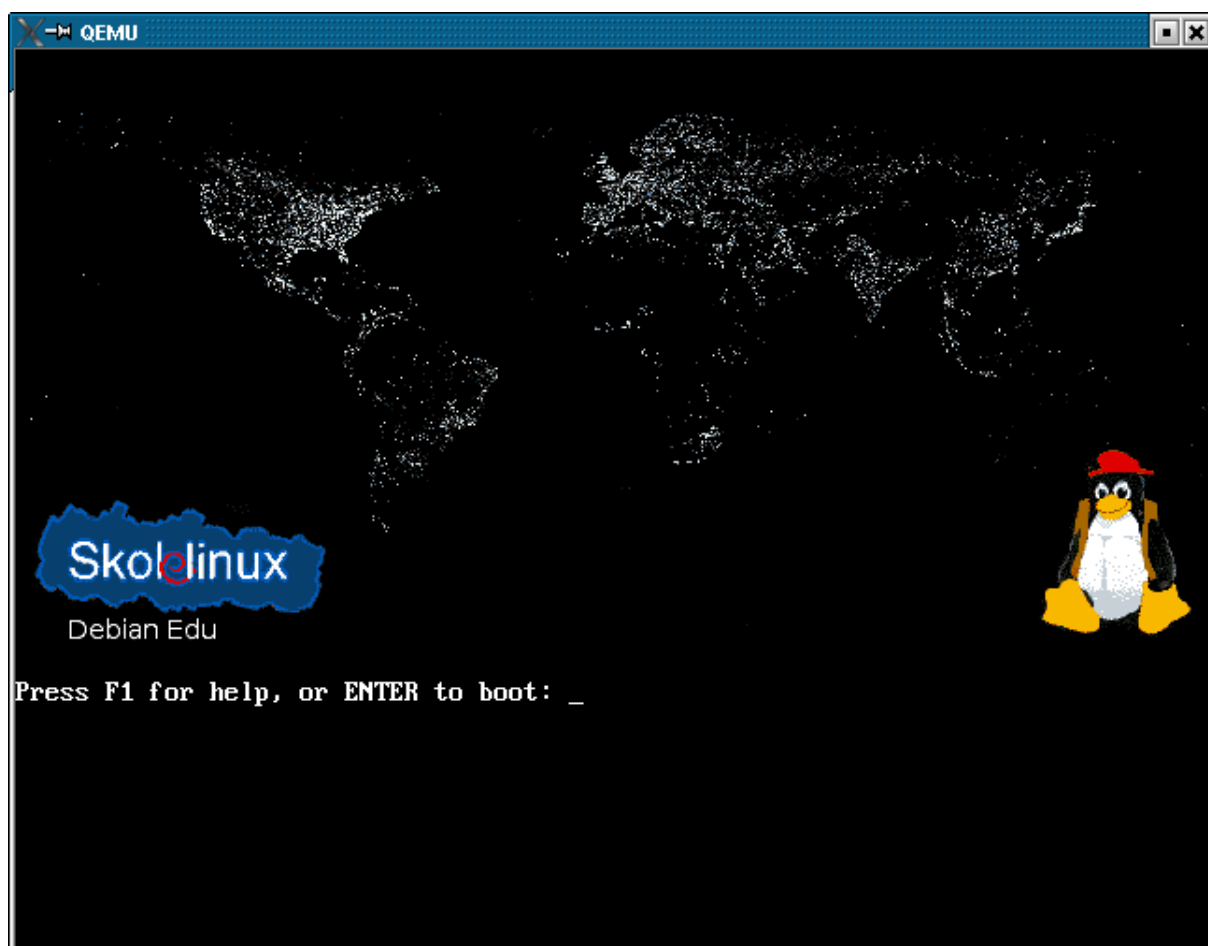
It is possible to reconfigure workstations to cache authentication information and sync the home directories to local disk (and resync to the server when in the network) with `unison`, but there is currently no howto available for this.

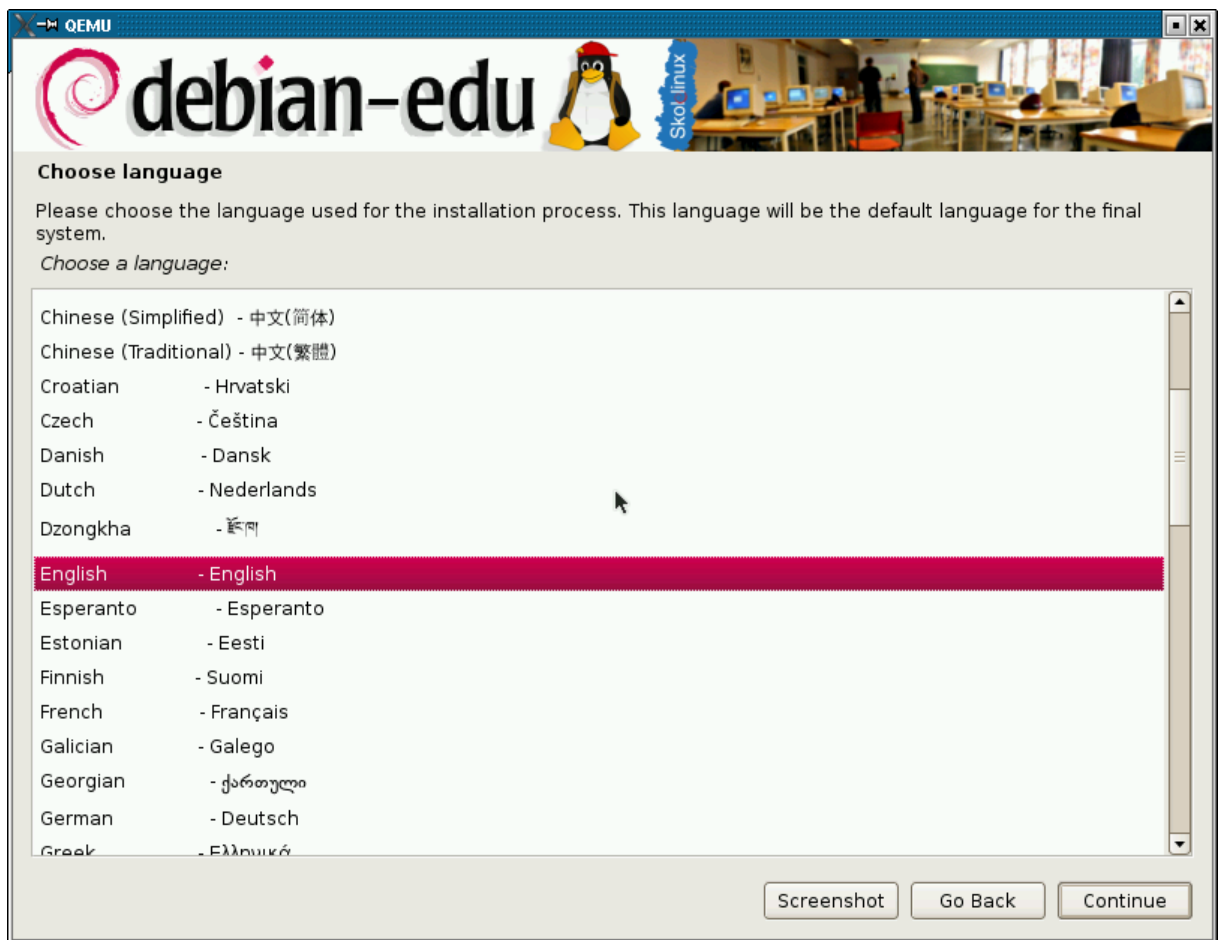
6.5.3 A note on DVD installs

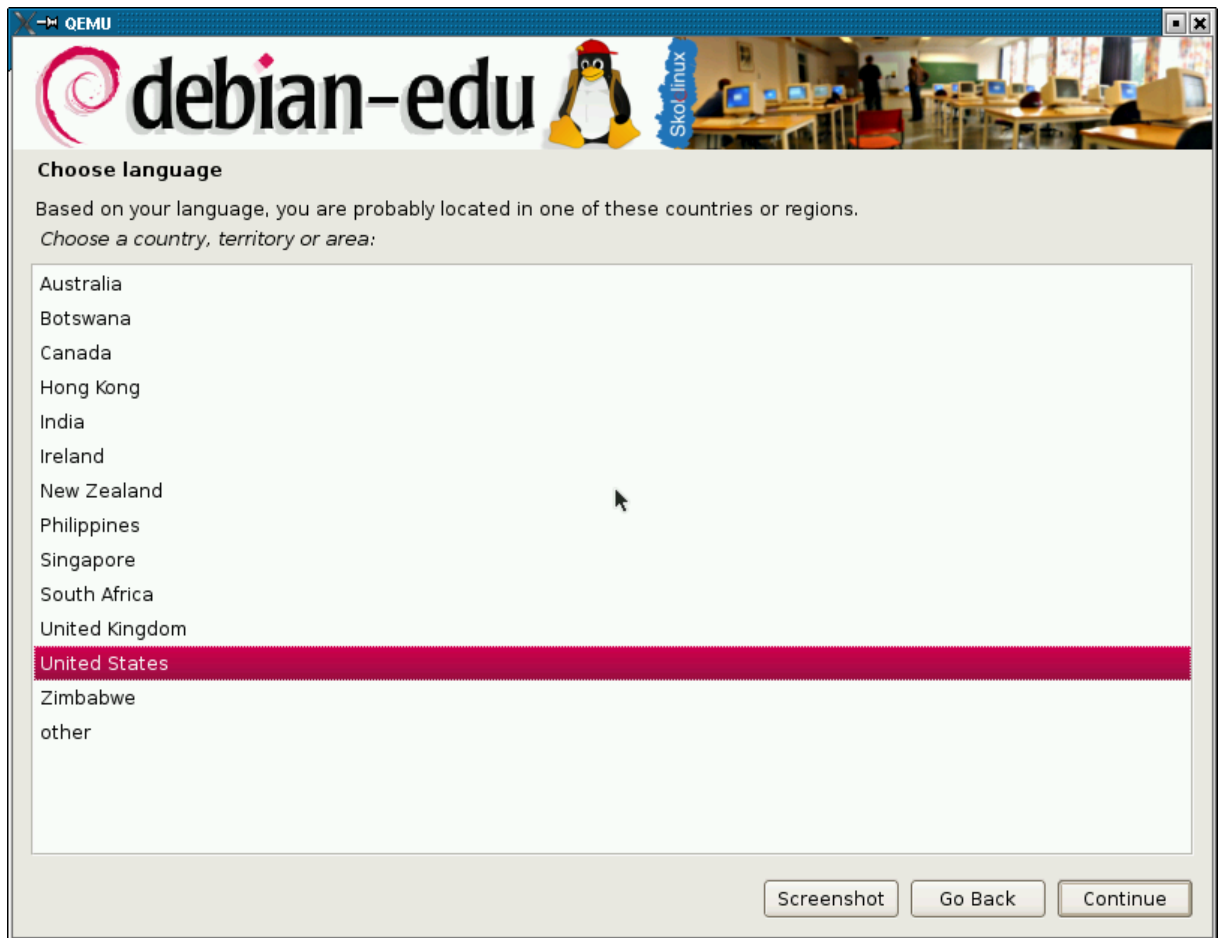
If you install from a DVD `/etc/apt/sources.list` will only contain sources from the DVD. If you have an internet connection we strongly suggest to add the following lines to it, so that available (security) updates can be installed:

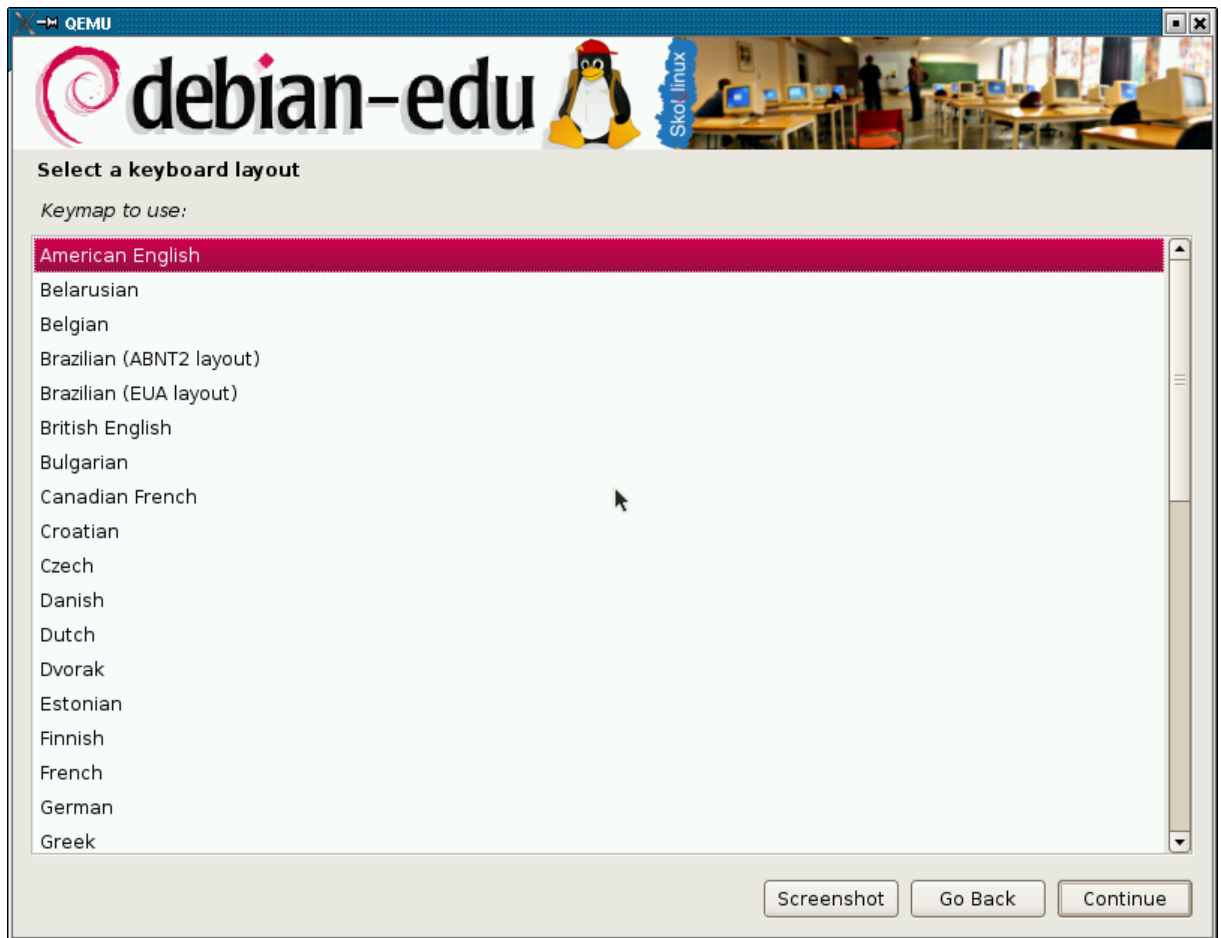
```
deb http://ftp.debian.org/debian/ etch main
deb http://security.debian.org/ etch/updates main
deb http://ftp.skolelinux.org/skolelinux etch local
```

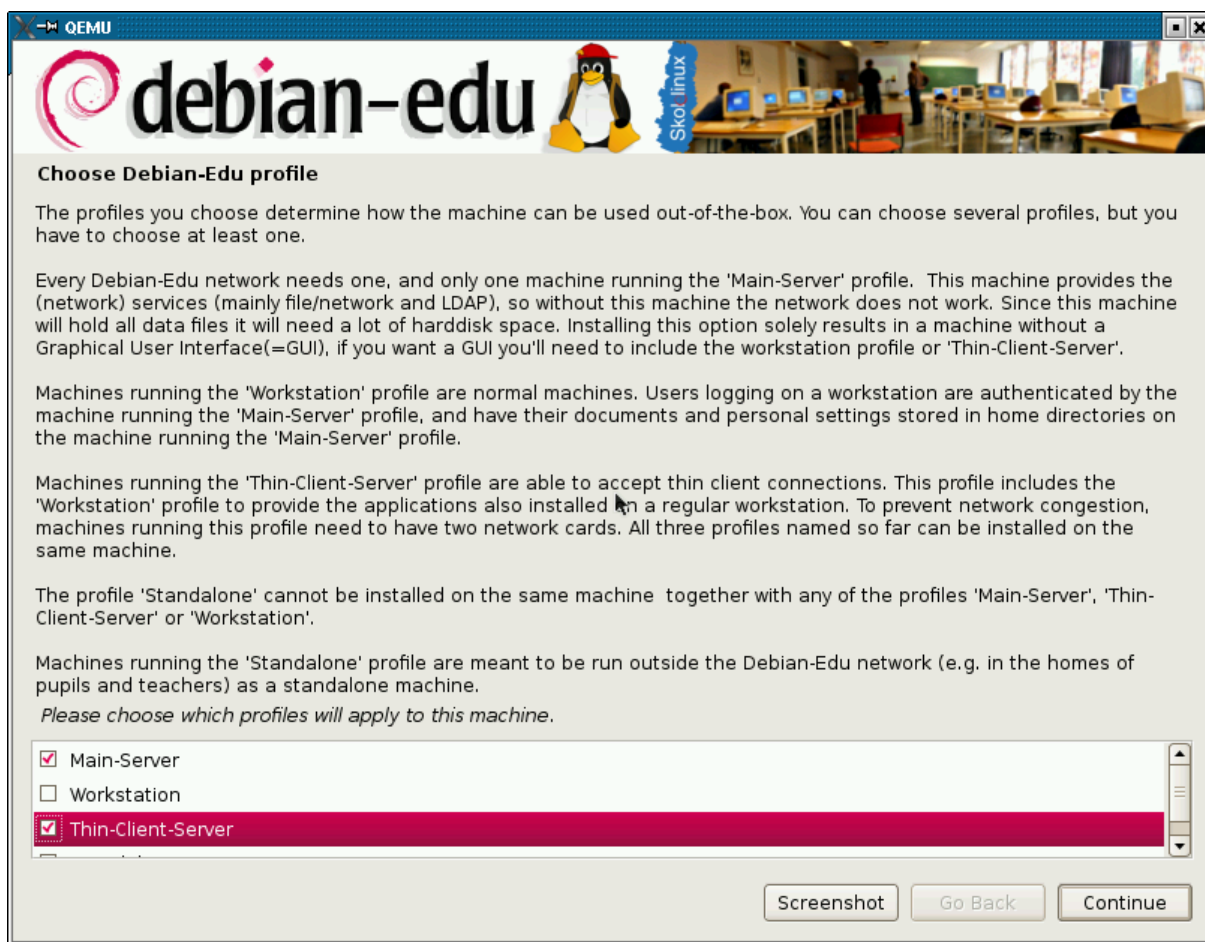
6.6 Screenshot tour through an i386 main-server + thin-client-server installation

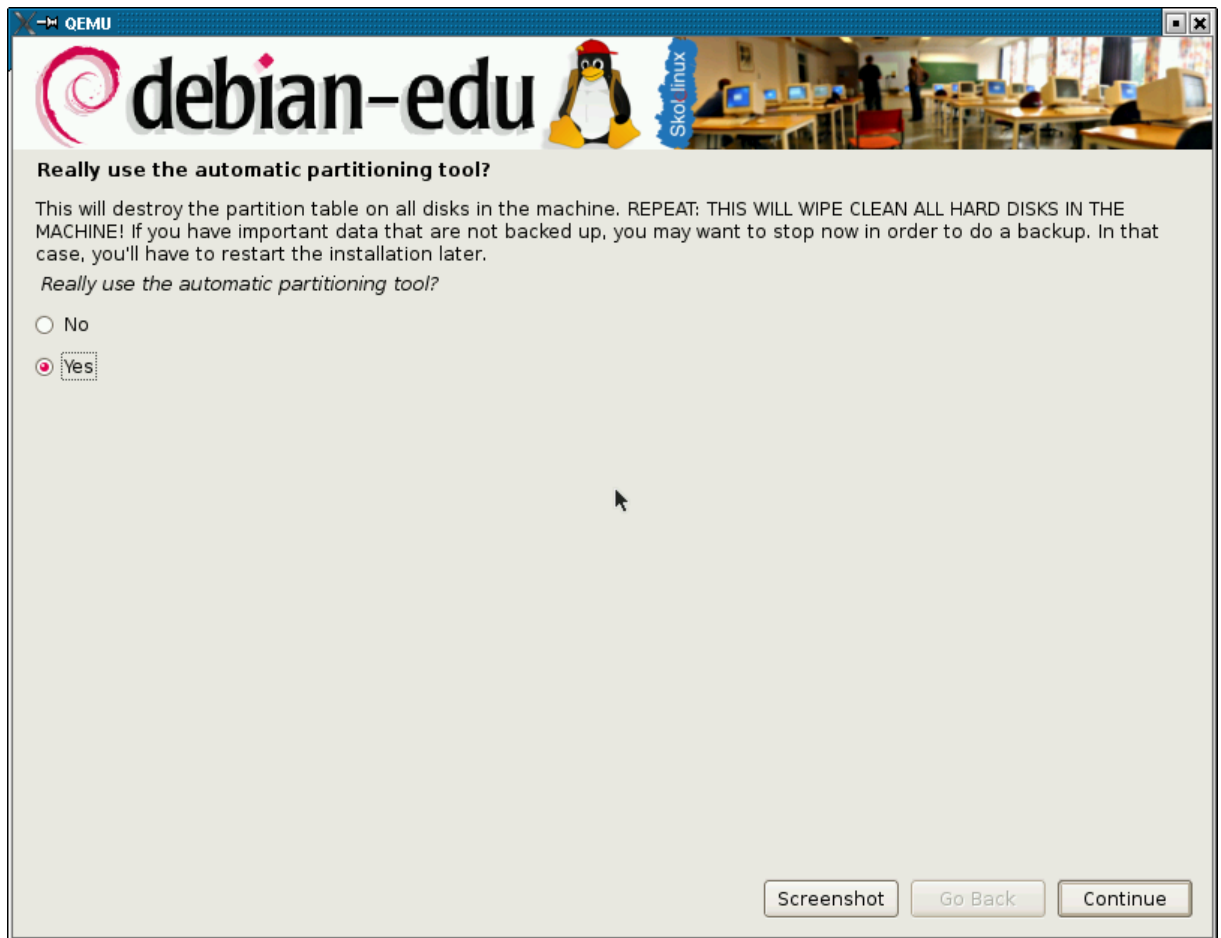


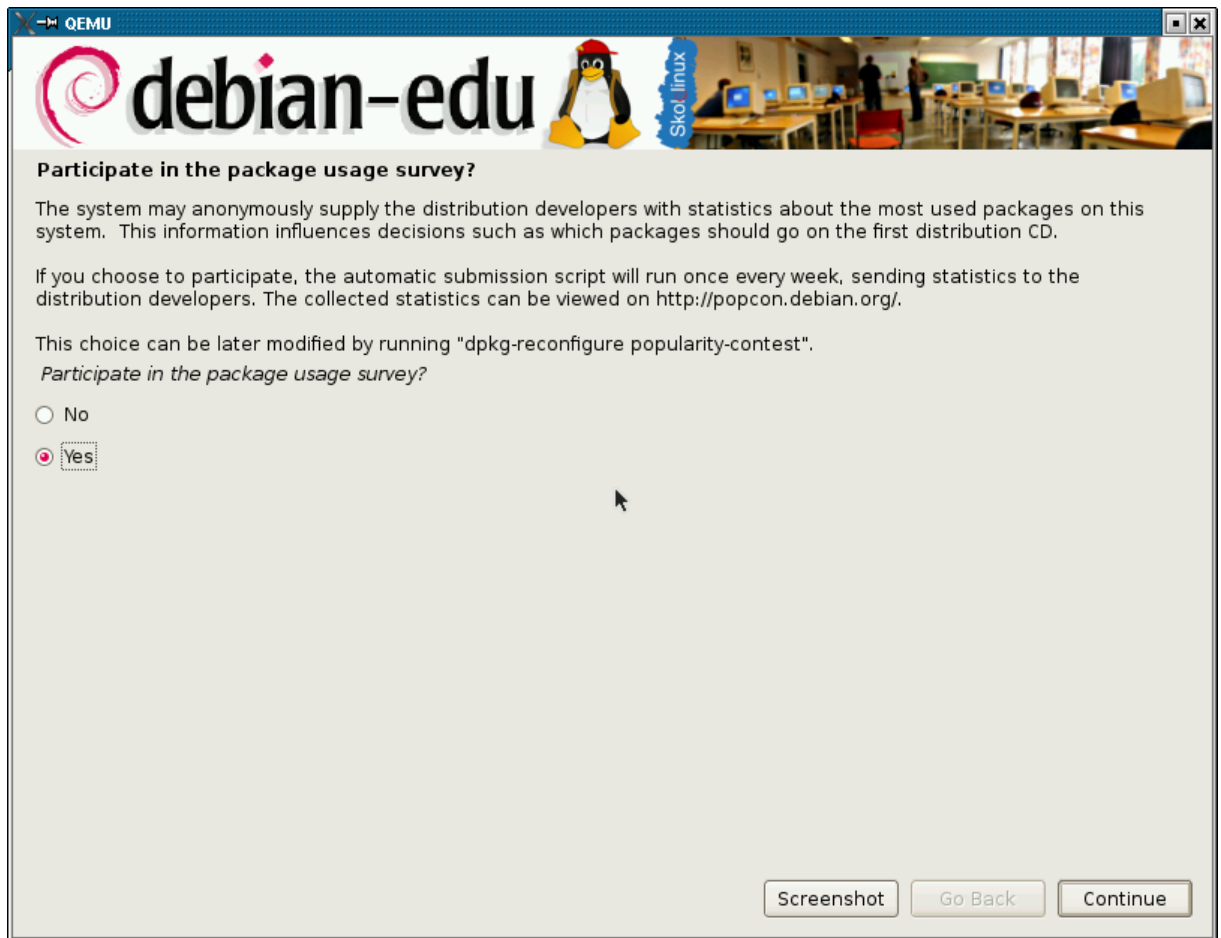


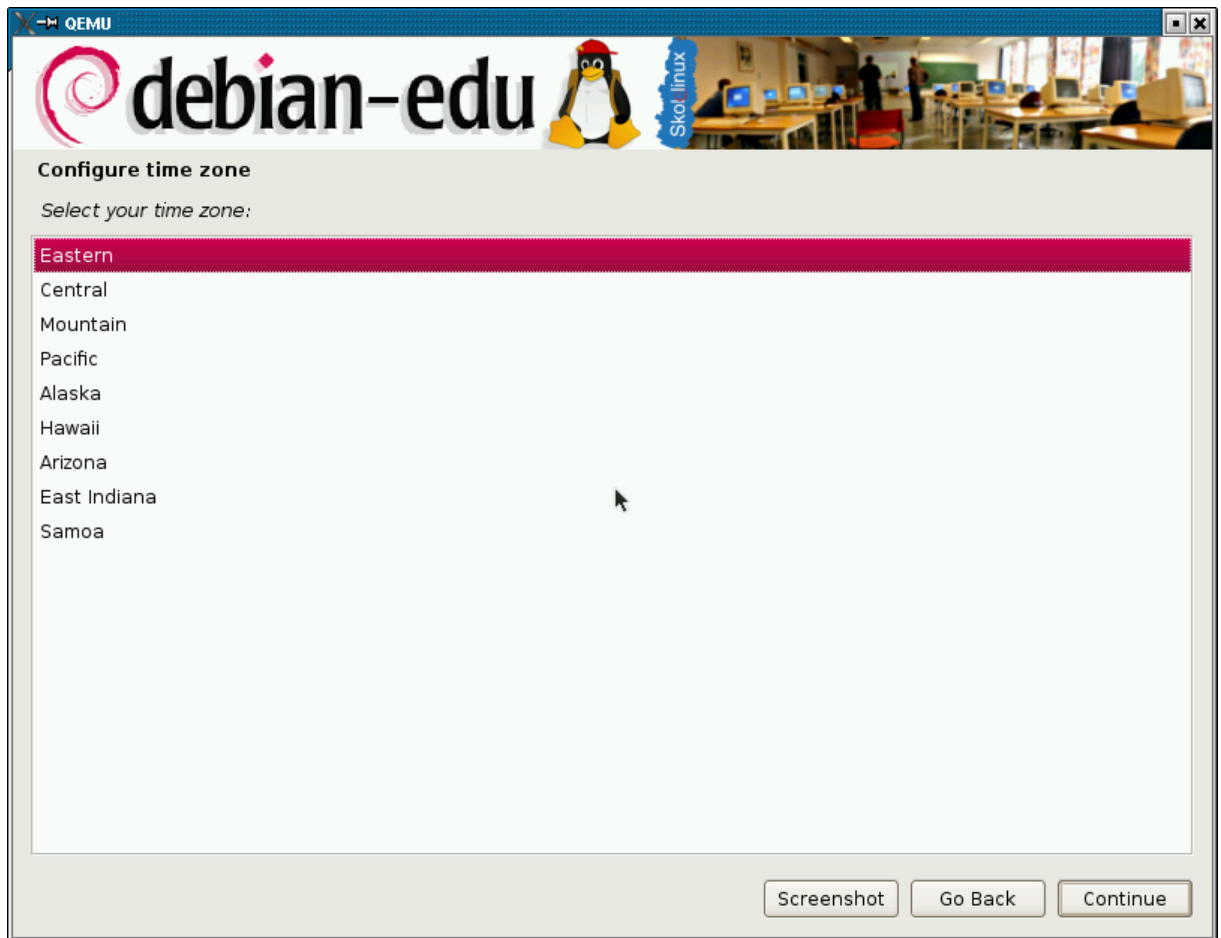


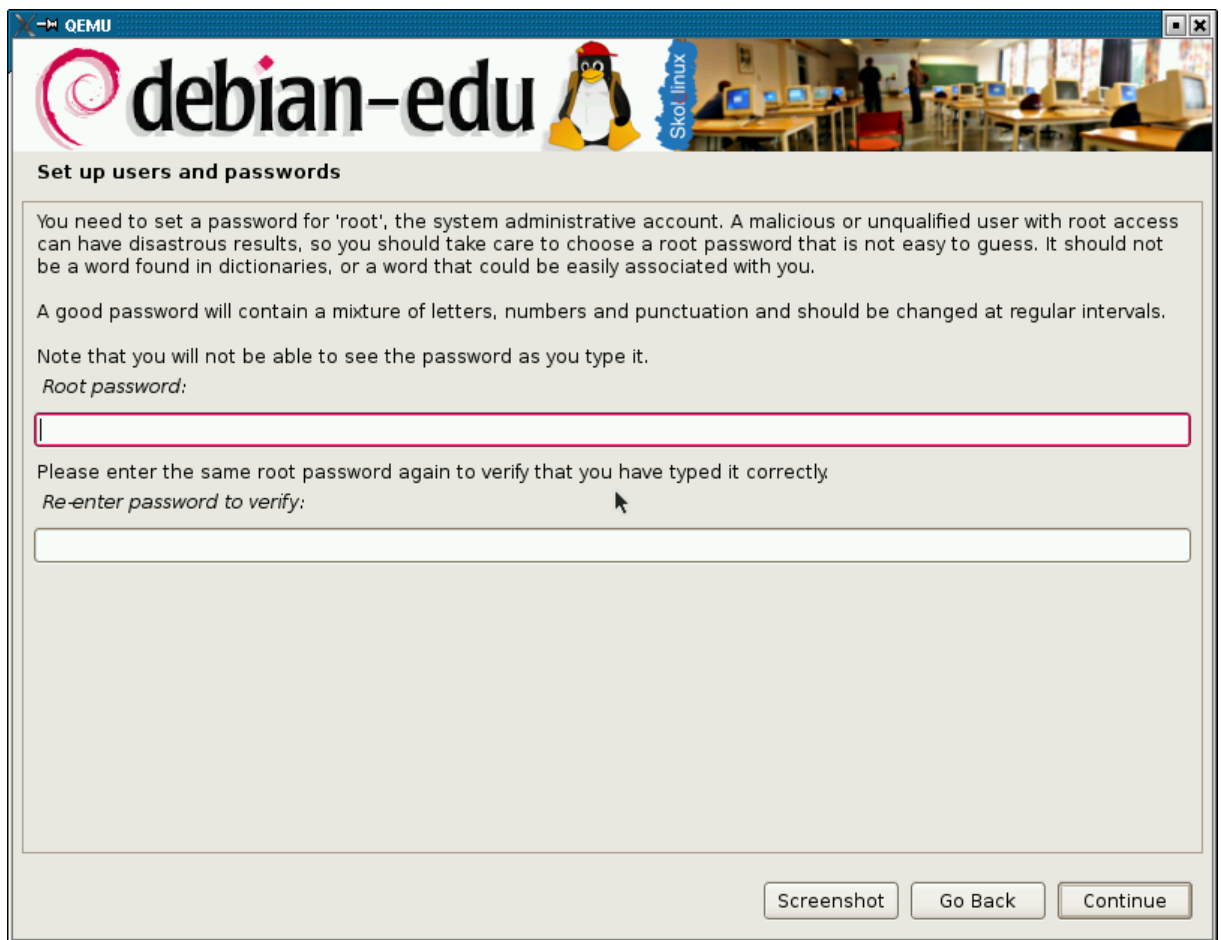


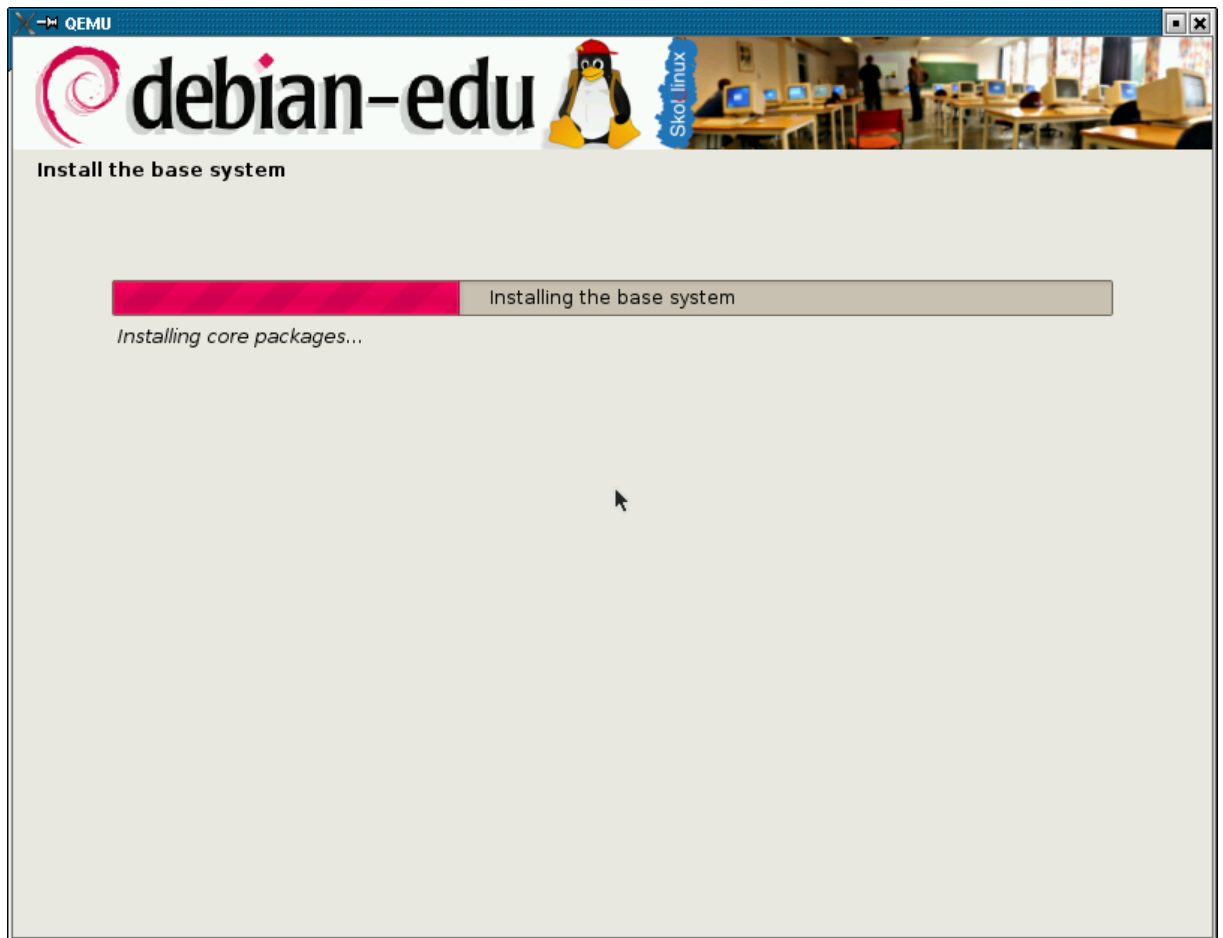


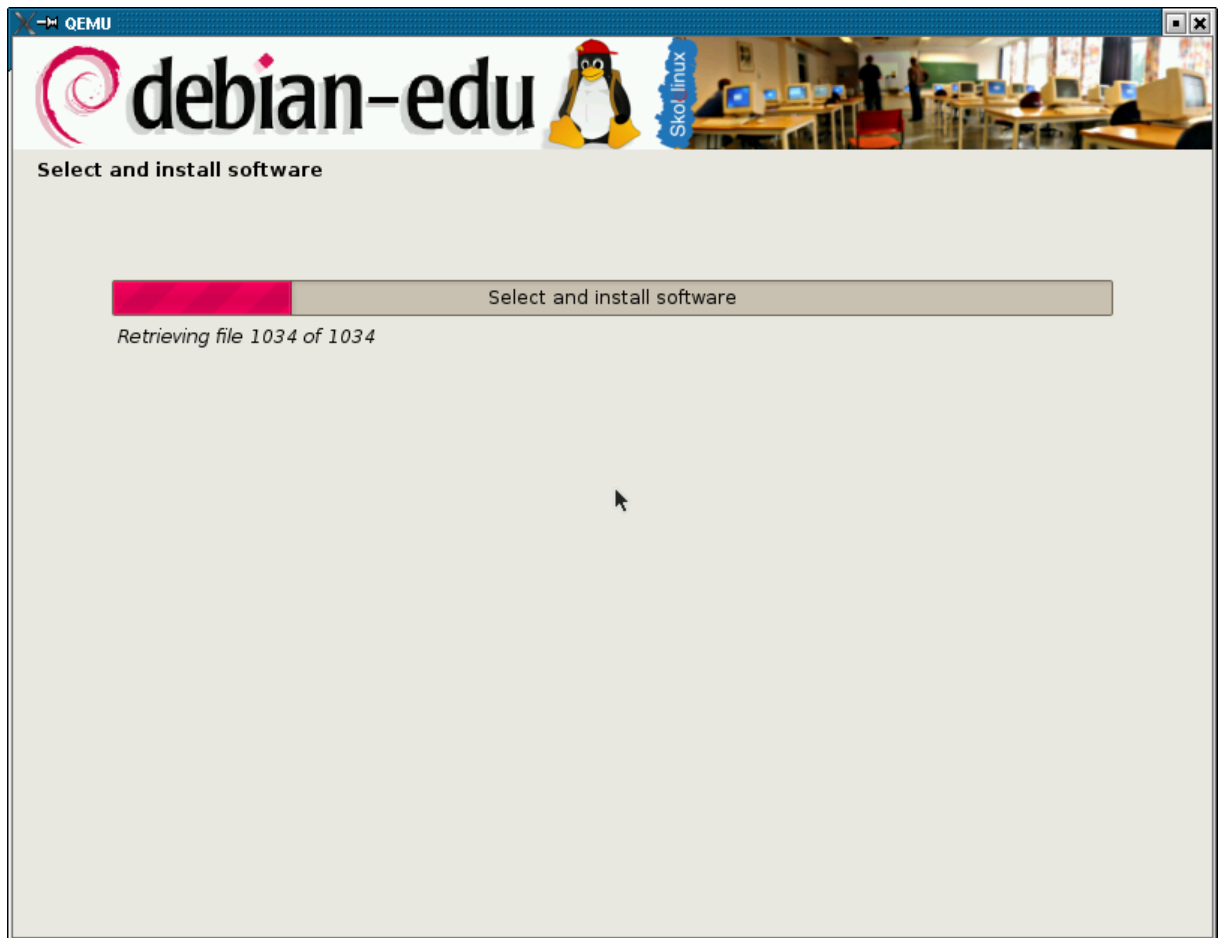


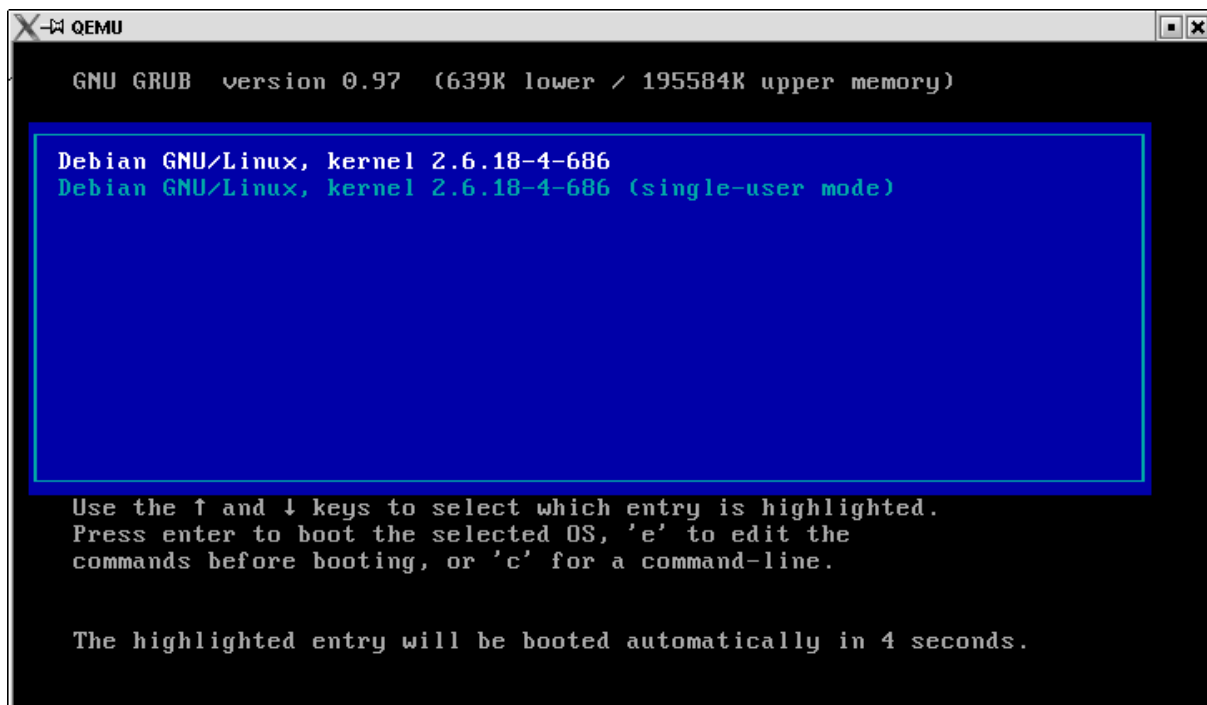
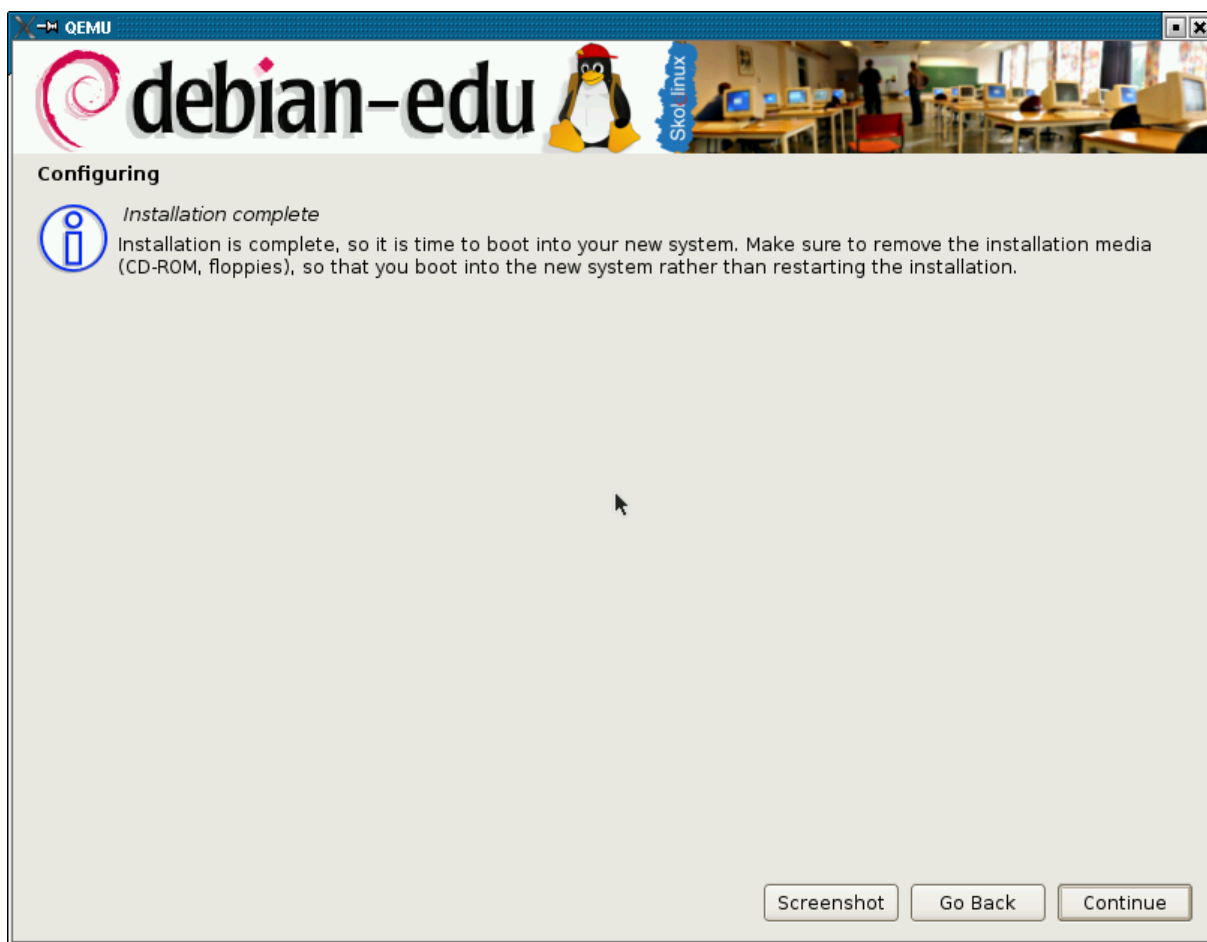


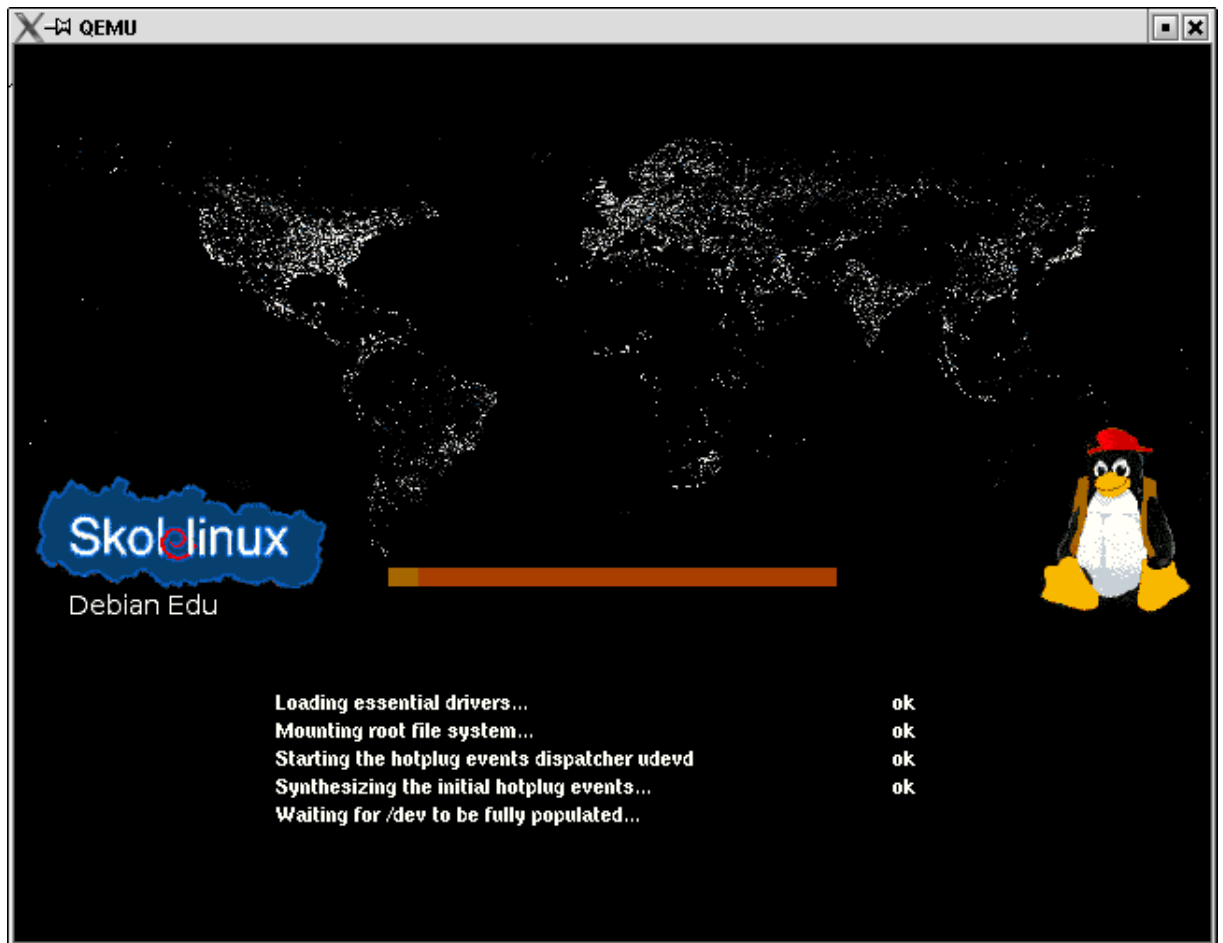




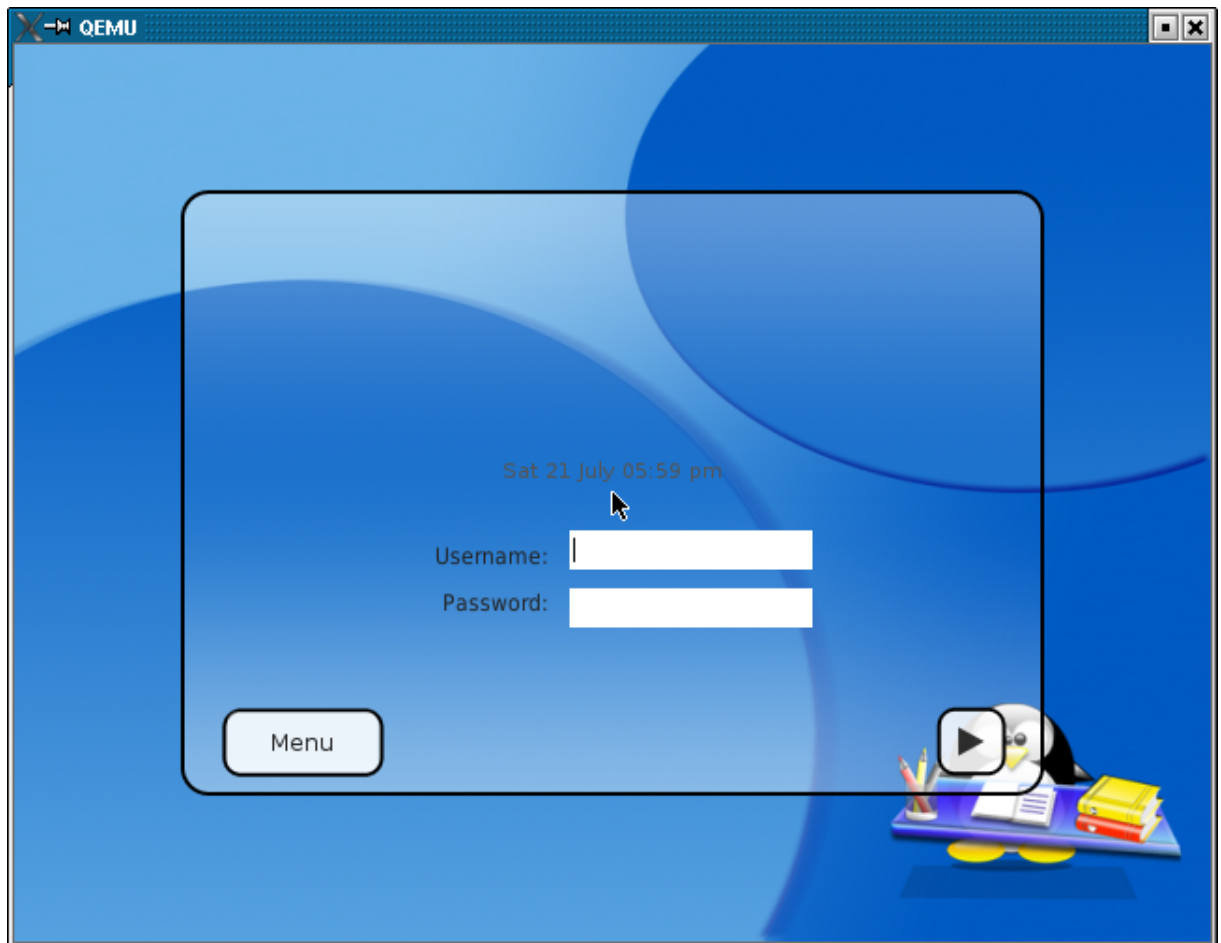








The KDM login screen was manually adjusted to reduce the resolution for this screen shot.



7 Getting started

This chapter describes the first steps you need to do after the installation to get started. The minimum you need to do is:

- adding workstations to host netgroups (for exporting home-directories via NFS)
- adding users
- it's advised to add the workstations to the dhcpd-config - LTSP-servers must be added.

This is described below.

The [HowTo](#) chapter describes more tips and tricks and frequently asked questions, while this chapter describes the stuff everybody needs to do.



7.1 Services running on the main server

There are several services running on the main server which can be managed via a web management interface. We'll describe each service here.

7.1.1 Web based management, using lwat

Lwat is a web based management tool, that will help you manage some important parts of your Debian Edu setup. You can manage this four main groups (add, modify, delete):

- User Administration
- Group Administration
- Automount informations
- Machine Administration

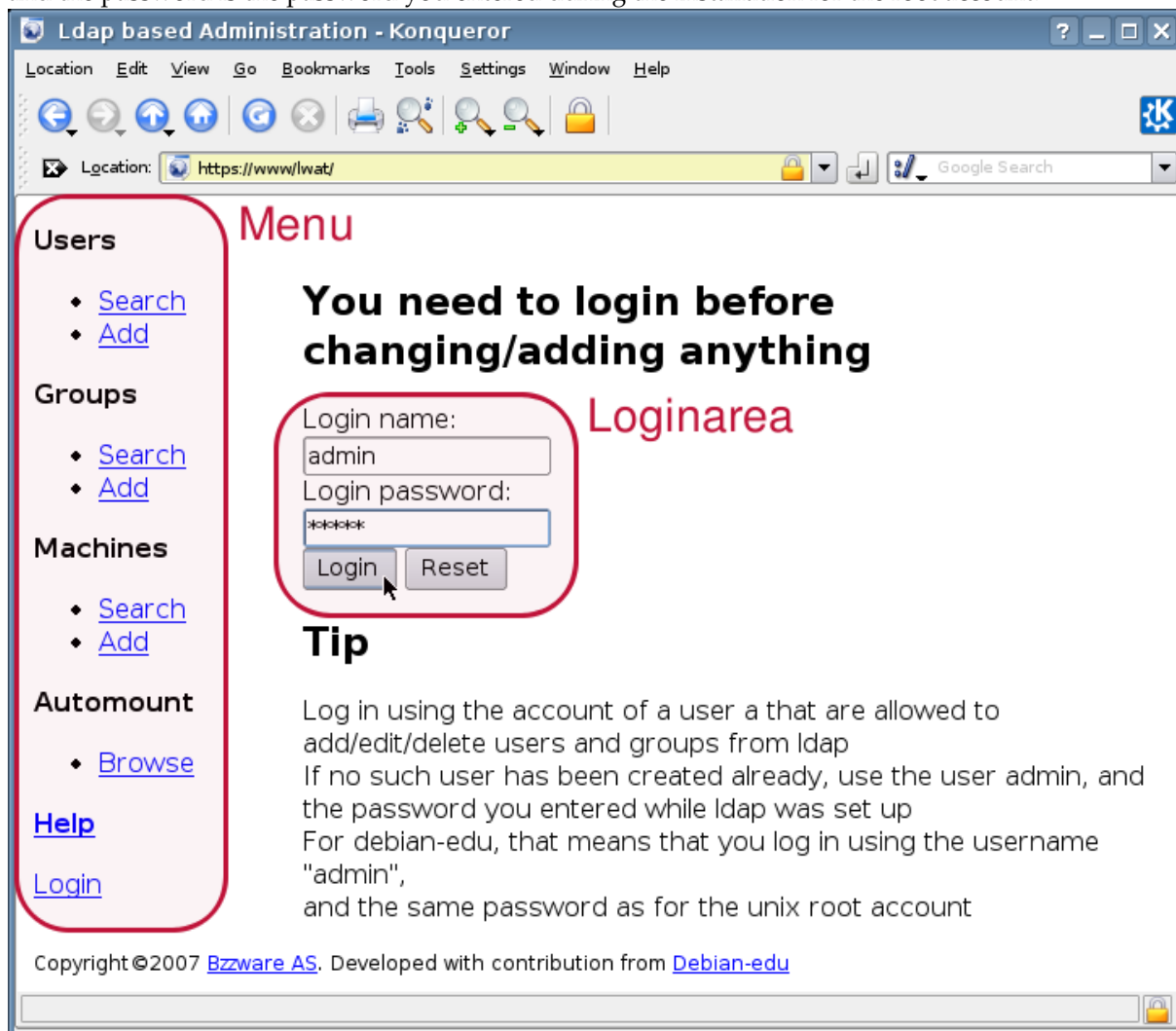
To access lwat point your webbrowser to <https://www/lwat> . You will get an error message, because of atleast 2 facts:

- the certificate is self-signed
- The certificate is generated for tjener.intern
- you may also get an error if the installation is more than one month old, since the certificate is only valid for one month.

When you have neglected the warnings (or fixed them...), you will see the page below with the menu fixed to the left part and the varying main part on the right. First you'll see a login screen where you can login with your admin account. If you visit this site the first time after installation, the loginname there is:

admin

and the password is the password you entered during the installation for the root account.



After login the loginarea will disappear and you can choose a task in the menu.

7.1.2 User Management with lwat

In Debian Edu account informations are stored in a LDAP directory and get used from there not only from the main server itself, but also from the workstations and thinclient server in the network. This way the information about students, pupils, teachers, ... only need to be entered once and are then available on all systems of the network.

To get the work done efficiently lwat will assist you on getting your users data entered to the LDAP directory.

You can add users, group them in usergroups (for example to refer the members of a class more easily), update them and remove them again. The menu entries for this are the four topmost entries (in the two topmost groups).

7.1.2.1 Adding users To add users you only have to choose "Add" in the "Users" section of the menu. After choosing this entry you will see a form where you can enter the data of the user you want to add. The most important thing to add is the full name of your user (point one in the image). As you enter you will see, that lwat will generate a username automatically based on the realname. If you don't like the generated username you can change it later. Second you need to choose the role of your account, which is used by lwat to determine the privileges the user has for systemadministration. Currently lwat knows the following roles:

role	granted privileges
Students	Login and use the system
Teachers	Same as Students
jrAdmins	Same as Teachers, but can also change other user passwords (besides the ones of Admins)
Admins	Admins have ultimate privileges. They can add/modify/delete users/groups/machines/automounts and let windows systems join the Skolelinux domain

After choosing a suitable role you can hit the "Save" button and the user is added.

You may miss the option to set a password, that has been deactivated, but you can set a own password by modifying the user added.

Ldap based Administration - Konqueror

Location: <https://www.lwat/>

Users

- Search
- Add

Enter full name of the user: ①

Select user template: ②

Username:

Import from file

File:

Machines

- Search
- Add

Automount

- Browse

[Help](#)

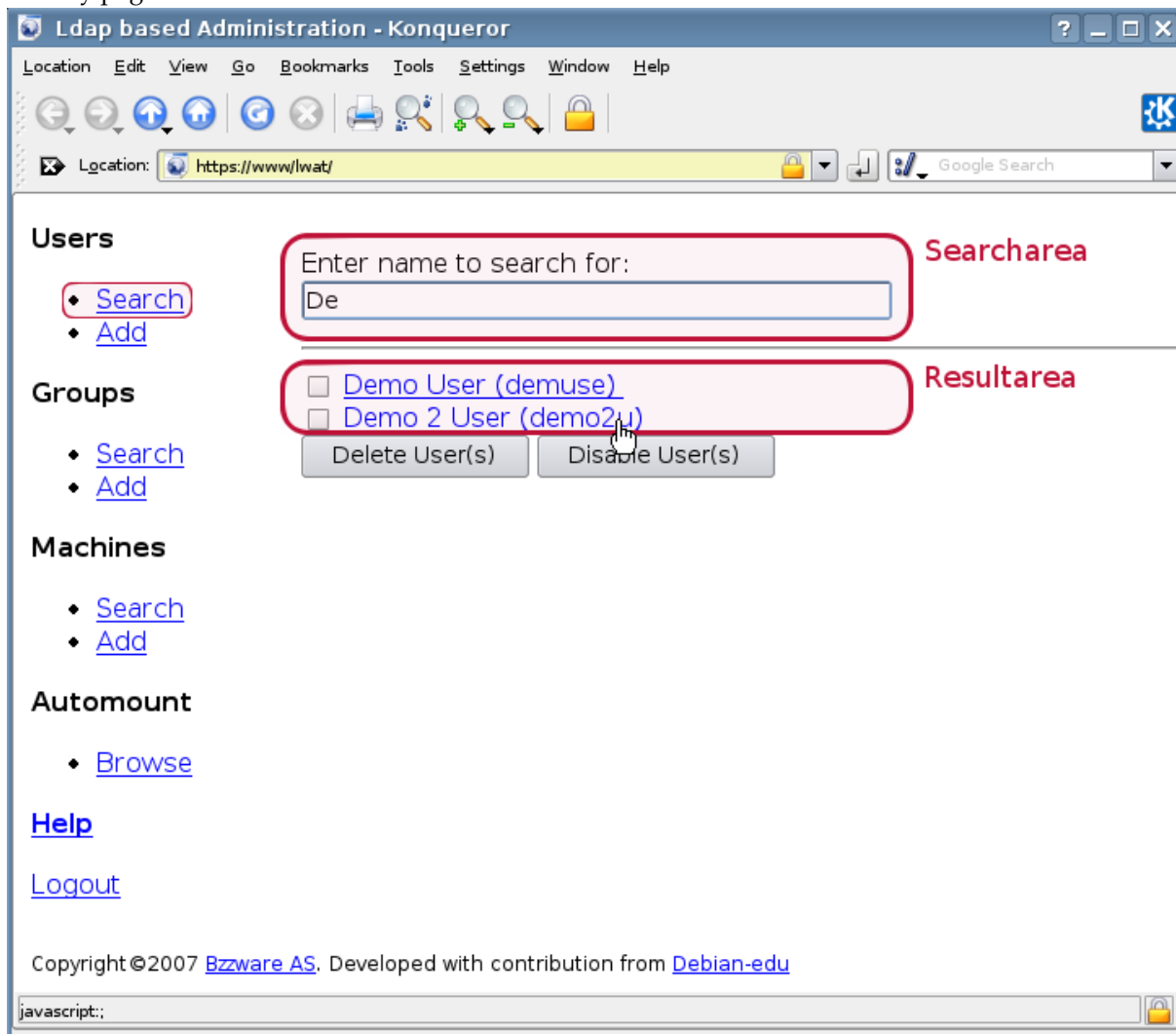
[Logout](#)

Copyright ©2007 [Bzware AS](#). Developed with contribution from [Debian-edu](#)

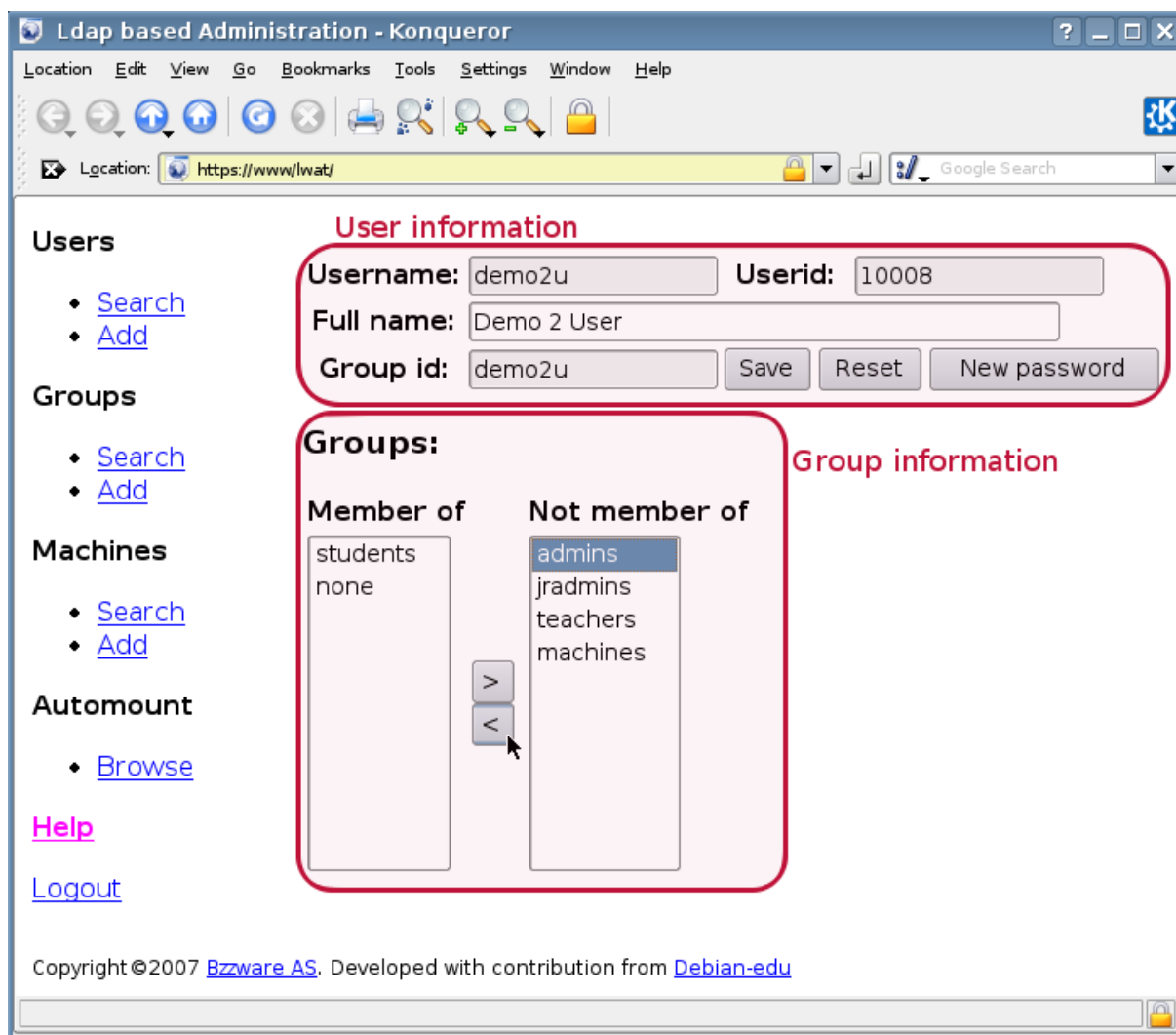
If all went well, you will see a short notice at the end of page with the data added to the ldap directory (also the form gets reset):

```
Added user: Demo User
username: demuse
password: somethingsecret
```

7.1.2.2 Search and delete Users To modify or delete a user you need to first find her using the search menu entry. You will find a form (searcharea in the screenshot) where you can enter either the realname or the username of the user. The results will show up below the form (marked as resultarea in the image). On the left of every result line there is a checkbox you can use to delete or disable on or more user with the two buttons below. If you want to modify a user, just click on it, all result lines are links to the modify page.



A new page will show up where you can modify information directly belonging to a user, change the password of the user and modify the list of groups the user belongs to.



7.1.3 Group Management with Iwat

The management of groups is very similar to the management of users. You can enter a name and a description per group. When searching for groups you can also delete or disable all users of the groups found. From the modification page you can access all the users of that group.

The groups entered in the group management are also regular unix groups, so you can use them for file permissions too.

7.1.4 Machine Management with Iwat

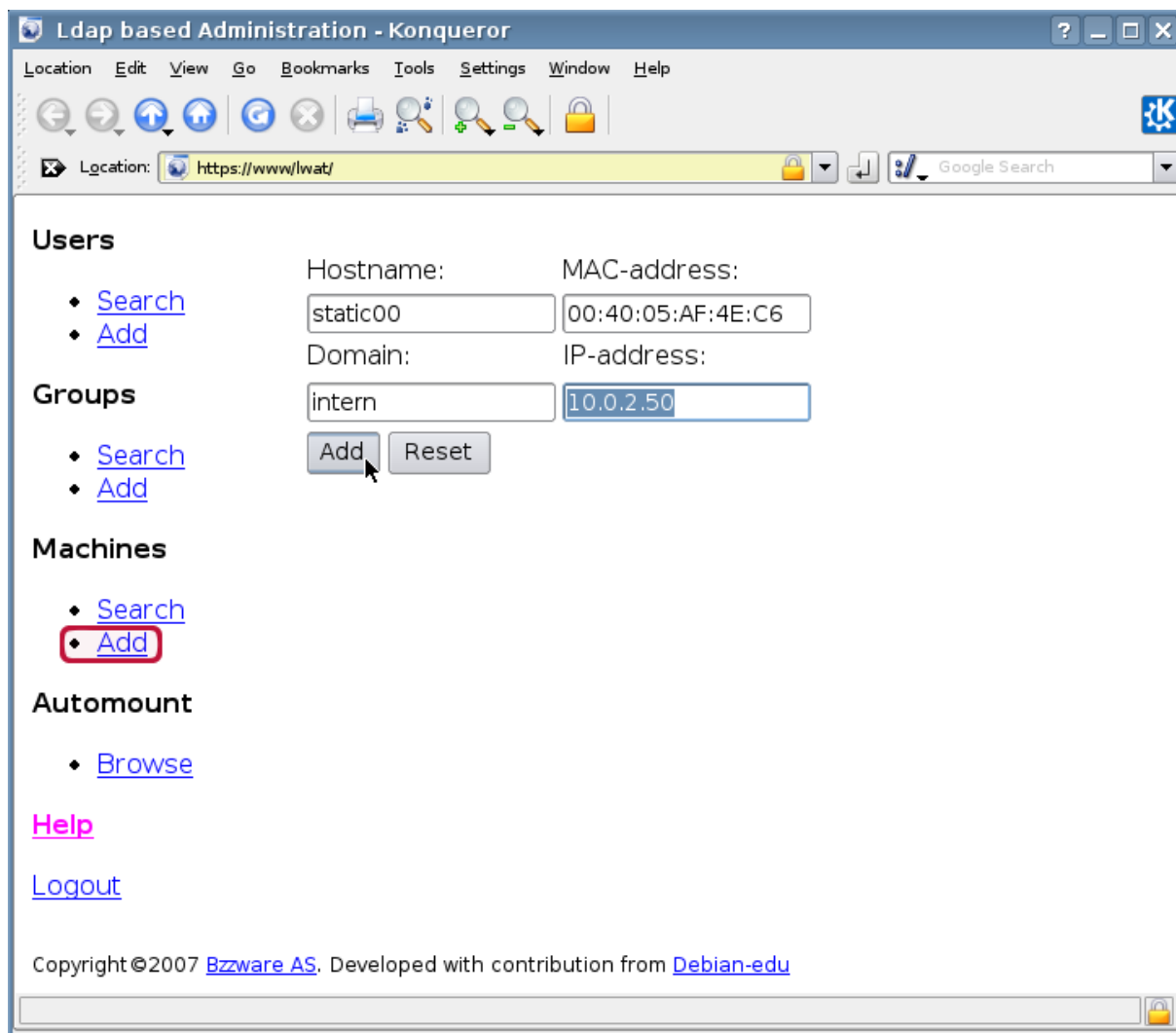
With the machine management you can basically manage all IP based devices in your Debian Edu network. Every machine added to the LDAP directory using Iwat has a Hostname, an IP-address, an MAC-address and a domain name which usually is "intern". For a more verbose description about the Debian Edu architecture see the [architecture](#) chapter of this manual.

If you add a machine, you can use an ip/hostname from the preconfigured address space. The following ip ranges are predefined:

The addresses from 10.0.2.100 till 10.0.2.255 and 10.0.3.0 till 10.0.3.243 are reserved for dhcp and are assigned dynamically.

To assign a host with the MAC-address 00:40:05:AF:4E:C6 a static IP-address you only have to enter the MAC-address and the hostname static00, the remaining fields will be filled automatically according to the predefined configuration.

First address	Last address	hostname
10.0.2.10	10.0.2.29	ltspserverxx
10.0.2.30	10.0.2.49	printerxx
10.0.2.50	10.0.2.99	staticxx



This will not configure the dhcp server. You need to configure the host statically or edit the configuration of the dhcp server by hand as shown directly below.

7.1.4.1 Assign static ip addresses with dhcp To assign a static ip address to a host which you added to the ldap tree via lwat, you need to edit `/etc/dhcp3/dhcpd.conf` and run `/etc/init.d/dhcp3-server restart` as root.

For our example above you would, after open `/etc/dhcp3/dhcpd.conf` in your favourite editor, search for the configuration section of the host `static00`. You should find something exactly like this:

```
host static00 {
    hardware ethernet 00:00:00:00:00:00;
    fixed-address static00;
}
```

You need to replace the all-zero MAC-address with the correct one of your static host. For our example host it will look like this:

```
host static00 {  
    hardware ethernet 00:40:05:AF:4E:C6;  
    fixed-address static00;  
}
```



Don't forget to restart the `dhcpd` as described above whenever you have changed the configuration.

7.1.4.2 More lwat documentation The full documentation for `lwat` can be found at `/usr/share/doc/lwat/` on the main server or [online](#).

7.1.5 Printer Management

For Printer Management point your webbrowser to <https://www.631> This is the normal cups management site where you can add/delete/modfiy your printers and can clean up the printing queue. For changes where you have to login as root with your root password, you will be forced to use ssl encryption.

If you connect the printer for the first time, we suggest to run `printconf` as root. **FIXME:** explain what to do when this does not accomplish anything.

7.1.6 Clock synchronization

The default configuraiton in Debian Edu is to keep the clocks on all machines synchronous but not necessarily correct. NTP is used to update the time. The clocks will not be synchronized with an external source by default, to make sure the machines to not use external network connections active all the time. This was configured like this after a school discovered their ISDN network was up all the time, giving them a nasty extra phone bill.

To enable synchronization with an external clock, the file `/etc/ntp.conf` on the main-server need to be modified. The comments in front of the `server` entries need to be removed. After this, the ntp server need to be restarted by running `/etc/init.d/ntp restart` as root. To test if the server is using the external clock sources, run `ntpq -c lpeer`.

7.1.7 Extend full partitions

Because of a bug in the automatic partition, some partitions might be too full after installation. To extend the full partitions, run `debian-edu-fsautoresize -n` as root. See the "Resize Partitions" HowTo in the [administration howto chapter](#) for more information.

8 Maintainance

8.1 Updating the software

This section explains how to use `aptitude upgrade` and `kde-update-notifier`.

Using `aptitude` is really simply. To update a system you need to execute two commands on the command line as root: `aptitude update` (updates the lists of available packages) and `aptitude upgrade` (upgrades the packages for which an upgrade is available).

Instead of using the command line you can also use `kde-update-notifier`. **FIXME:** Explain how, maybe with a screenshot.

It is also a good idea to install `cron-apt` and `apt-listchanges` and configure them to send mail to an address you are reading.

`cron-apt` will notify you once a day via email, which packages need an update. It does not install these updates, but downloads them (usually in the night), so you don't have to wait for the download, when you do `aptitude upgrade`.

`apt-listchanges` can send new changelog entries to you.

8.2 Backup Management

For the backup management point your browser to <https://www.slbackup-php>. Please note that you have to access this site via ssl, since you have to enter the root password there. If you try to access this site without using ssl it will fail.

Per default the tjener will backup `/skole/tjener/home0`, `/etc/` and the ldap to `/skole/backup` which is in the lvm. If you only want to have things twice (if you delete something) this setup should be fine for you.

`/root/.svk` will also be backed up if you install from etch-test today. (FIXME this, once it's in etch.)



Be aware that this backup doesn't protect you from failing harddrives.

If you want to backup your data to an external server, a tape device or another harddrive you'll have to modify the existing configuration a bit. FIXME: I have to have a look on the webpage of slbackup-php to describe this further

8.3 Server Monitoring

8.3.1 Munin

Munin trend reporting system is available from <https://www.munin/>. It provides system status measurement graphis on a daily, weekly, monthly and yearly basis, and allow the system administrator help when looking for bottlenecks and the source of system problems.

The list of machines being monitored using munin is generated automatically based on the list of hosts reporting to sitesummary. All hosts with the package munin-node installed is registered for munin monitoring. It will normally take two days from a machine is installed until munin monitoring start, because of the order the cron jobs are executed. To speed up the process, run `/etc/cron.daily/sitesummary-client` as root on the freshly installed machine, and `/etc/cron.daily/sitesummary` as root on the sitesummary server (normally the main-server).

Information about the munin system is available from <http://munin.projects.linpro.no/>.

8.3.2 Nagios

Nagios system and service monitoring is available from <https://www.nagios2/>.

The username is nagiosadmin and the password is undefined, you must set your own password before you can login and use nagios. For security reasons, avoid using the samme password as root. To change the password you can run the following command as root:

```
htpasswd /etc/nagios2/htpasswd.users nagiosadmin
```

By default from Debian-Edu 3.0r1 Nagios does not send email. This can be changed by replacing `notify-by-nothing` with `host-notify-by-email` and `notify-by-email` in the file `/etc/nagios2/debian-edu/contacts.cfg`.

Information about the nagios system is available from <http://www.nagios.org/> or in the nagios-2-doc package.

8.3.3 Sitesummary

A simple report from sitesummary is available from <https://www.sitesummary/>.

Some documentation on sitesummary is available from <http://wiki.debian.org/DebianEdu/HowTo/-SiteSummary>

9 Upgrades

Before explaining how to upgrade, please note, that you do this update on your productive server on your own risk. **Debian Edu/Skolelinux comes with ABSOLUTELY NO WARRANTY, to the extent permitted by applicable law.** Please read this chapter completely before attempting to upgrade.

More [information about the Debian etch release](#) is available in its installation manual.

If you want to be sure that after the upgrade everything works like before, you should test the upgrade on a test server, which is configured the same way as your production server. There you can test the upgrade without risk and see if everything works as it should.

Also it might be wise to wait a bit and keep running sarge for some more weeks, so that others can test the upgrade, experience problems and document them here. Debian Edu sarge will receive continued support for some time in the future, but when Debian **ceases support for sarge**, Debian Edu will (have to) do that too. This is expected to happen in April 2008.

9.1 Upgrades from Debian Edu sarge

Please read this chapter completely before you start upgrading your systems.

In case of problems you could also read the **releasenotes for Debian etch**. (Debian Edu/Skolelinux "2.0 Terra" installed a 2.6 kernel as default, but if you are running a 2.4 kernel, you *should* read the **notes on upgrading from kernel 2.4 to 2.6** before you upgrade!)

9.1.1 Partitioning scheme changed

The main problem upgrading from the sarge-based Release to Terra is that the Partition Scheme changed completely. The sarge-based Release has two volume Groups:

- vg_data which holds the Data Partition as /skole/tjener/home0, ...
- vg_system contains System Partitions as /var, /usr /var/spool/squid

But the etch based release has only 1 Volume Group due to internal changes of the Installer.

The main problem is that the vg_system volume group is quite small since the data in this partition is mostly static. When trying the upgrade on a virtual machine with an 8GB harddrive, the upgrade failed since it was not possible to free more space on the vg_sytem. Please note that you should have about 1,5GB free space on /var and about 600MB free space on /usr. If this is not the case the upgrade will fail because of too little free space on the device.

9.1.2 Prepare the system

If you have enough space in the vg_system volume group but not in the lv_var partition, you have to resize this partition:

- 1.) Umount the /var partition, you'll have to umount the /var/spool/squid partition for this to work, too:

```
- /etc/init.d/squid stop
  umount /var/spool/squid
  umount -fl /var
```

- 2.) fsck the partition:

```
- e2fsck -f /dev/vg_system/lv_data
```

- 3.) resize the partition:

```
- lvextend -L +1GB /dev/vg_system/lv_data
```

- 4.) resize the filesystem:

```
- resize2fs /dev/vg_system/lv_data
```

- 5.) mount the partitions again:

```
mount /var
mount /var/spool/squid
/etc/init.d/squid start
```

Now modify `/etc/apt/sources.list` to contain these lines

- ```
deb http://ftp.debian.org/debian etch main
deb http://security.debian.org/ etch/updates main
deb http://ftp.skolelinux.org/skolelinux etch local
```

And start the upgrade with:

- ```
aptitude update
aptitude dist-upgrade
```

9.1.3 Answers to debconf questions raising during upgrade

Here we can give you some hints, what you should answer to the debconf question during the upgrade. But please note: This upgrade HowTo is based on a very plain fresh installation of an mainserver + terminalserver.

Which questions exactly raise up in addition to the ones described here depends on what is additionally installed on your system. (Additionally to what is installed as default in the sarge based Debian Edu release). So if there are any questions which you don't know how to answer, don't hesitate to ask us at the mailinglist (debian-edu@lists.debian.org) or at IRC ([#debian-edu](irc://irc.oftc.net)): #debian-edu.

* Configure nagios-common.

- Here you have to enter a password for the *nagiosadmin* user.

* Configure console-data

- Choose "Don't change keyboard layout"

* Configure openssh-server

- Don't deactivate challenge-response Auth.

* Configure systat

- Choose the default (yes) here.

* Configure popularity-contest

- If you choose "yes", this will help us improve Debian Edu. (We'll get an weekly report which programs are how often used). The data is gathered anonymously and you have the option to say "no".

* Configure libnss-ldap

1. Change the prompt to: *ldaps://ldap/*
2. Change the prompt to: *dc=skole,dc=skolelinux,dc=no*
3. Use ldapversion 3 here
4. Which account should root use for ldap lookups FIXME
5. Which password should root use here FIXME

* Upgrade glibc now. Answer "yes".

* Restart Services. Answer "yes".

These are the debconf questions you will see if you have no additional packages installed.

Now the upgrade process will start to upgrade the packages.

Please note: You will be asked several times if you want to keep your old modified version of a configfile or if you want to get the latest. The default is to keep your modified one. Unless you really have modified something, please always choose: "Install the latest one".

The upgrade will fail with this error message:

```
Errors were encountered while processing:
 mozilla-firefox-locale-it
 mozilla-firefox-locale-el
E: Sub-process /usr/bin/dpkg returned an error code (1)
```

To fix this you have to edit these two files: */var/lib/dpkg/info/mozilla-firefox-locale-it.postrm* and */var/lib/dpkg/info/mozilla-firefox-locale-el.postrm* and comment out in both the line containing: *update-mozilla-firefox-chrome* . Then restart the upgrade process with:

```
apt-get -f install
```

Now the upgrade continues:

* Several Modified configuration files (nagios)

- You should always keep your installed one (default) and hit enter

Then the installation failes another time:

```
Errors were encountered while processing:
 slapd
E: Sub-process /usr/bin/dpkg returned an error code (1)
```

In order to fix this, rename this directory: */var/backups/dc=skole,dc=skolelinux,dc=no-2.2.23-8.ldapdb* and since slapd now runs as user *openldap* (instead of as root) the permissions of the configuration files have to be changed:

```
chown -R openldap:openldap /etc/ldap/
apt-get -f install
```

Then the installation should finish **without** an error. Since now many packages are not upgrades please restart the dist-upgrade process again with:

```
aptitude dist-upgrade
```

The next error raising up is this one:

```
Errors were encountered while processing:
 /var/cache/apt/archives/courier-authlib-ldap_0.58-4_i386.deb
E: Sub-process /usr/bin/dpkg returned an error code (1)
```

Please remove the package: *courier-ldap* with

```
aptitude remove courier-ldap
```

and wait until it is finished. Then restart the dist-upgrade process again.

If you have only the default packages installed the upgrade process should now finish without raising more errors.

9.1.4 Problem upgrading bind

The only remaining upgrade issue is that the user of bind9 has changed, so you'll have to chown all bind-configuration files.

```
chown bind:root -R /etc/bind
```

See [#386791](#) for more information.

9.1.5 Samba groupmaps handling changed

There has been a change in how samba handles groupmaps between sarge and etch. Samba in sarge handled groupmaps internally, so a unix group was also a samba group. In etch samba keeps groupmap information in the LDAP database. Unfortunately this issue was discovered too late for our LDAP admin tool "lwat" to be aware of the situation.

When you upgrade your LDAP from a sarge installation, you must make sure to create the Domain Admins account, necessary for correct samba domain operation. Create the Domain Admins account with the command:

```
/usr/bin/net groupmap add rid=512 unixgroup=admins \  
    type=domain ntgroup="Domain Admins" \  
    comment="All system administrators in the school"
```

If you want your Windows computers to be aware of what groups users are in, you must create the groupmaps in LDAP manually, this is explained in more detail in the [HowTo/NetworkClients](#) chapter of this manual.

9.2 Upgrades from older Debian Edu / Skolelinux installations

Upgrades from the woody based Debian Edu / Skolelinux installation are not supported. Upgrade to the sarge based version first, a howto can be found at <http://wiki.debian.org/DebianEdu/HowTo/UpgradeFrom1.0>. Then upgrade to Terra (etch-based Release).

10 HowTo

- HowTos for [general administration](#)
- HowTos for [the desktop](#)
- HowTos for [networked clients](#)
- HowTos for [teaching and learning](#)

11 HowTos for general administration

The [Getting Started](#) and [Maintainance](#) chapters describe how to get started with Debian Edu and how to do the basic maintainance work. The howtos in this chapter are already "advanced" tips and tricks.

11.1 Installing single service machines for spreading the load from main-server

- barebone install using debian-edu-expert
- install the packages for the service
- configure the service
- disable the service on main-server
- update dns on main-server

11.2 Tracking /etc/ using the svk version control system

With the introduction of the `debian-edu-etc-svk` script in Debian Edu, all files in `/etc/` are tracked using svk as a version control system. This make it possible to see when a file added, changed and removed, as well as what was changed if the file is a text file. The svk repository is stored in `~root/.svk/`.

This feature is activated automatically in the Etch based version of Debian Edu, and all changes done during installation are registered. Changes in `/etc/` are committed every hour.

List of useful commands:

```
debian-edu-etc-svk diff
debian-edu-etc-svk log
debian-edu-etc-svk status
debian-edu-etc-svk commit
debian-edu-etc-svk ignore
```

11.2.1 Usage examples

In a freshly installed system try this to see all changes done since the system was installed:

```
debian-edu-etc-svk diff -r6 | less
```

To see the list of changes done in `/etc/`, use this command:

```
debian-edu-etc-svk log | less
```

To see the changes done to a specific file, specify the file:

```
debian-edu-etc-svk diff -r6 /etc/resolv.conf | less
```

To revert a change, use the `diff` command to look at the change, and edit the file to undo the change, or use a command like this to do it automatically:

```
( cd /etc && debian-edu-etc-svk diff -r6 /etc/resolv.conf | patch -p1 -R )
```

To manually commit a file, because you don't want to wait up to an hour:

```
debian-edu-etc-svk commit /etc/resolv.conf
```

If you don't want a specific file to be tracked in `svk`, you can tell to ignore it. But this is rarely useful



```
debian-edu-etc-svk ignore /etc/path/to/file/to/be/ignored
```

11.2.2 For those who upgraded from sarge/woody

`/etc` in `svk` was introduced with the `etch` based release of Debian Edu. If you installed your system prior to this, you need to initialize `svk` once with the following command run as root:

```
debian-edu-etc-svk init
```

This adds all files in `/etc` to `svk` and also activates the hourly commit cronjob.

11.3 Resize Partitions

Most partitions in Debian Edu are logical LVM volumes. Only the `/boot/` partition is not. With the Debian/etch release of Debian Edu, it is possible to extend partitions while they are mounted. This is a feature of the Linux kernel since version 2.6.10. Shrinking partitions still need to happen while the partition is unmounted.

It is a good idea to avoid creating very large partitions, as large partitions will take a long time to restore from backup if the need should arise, and file system check take a very long time for large partitions. A good limit can be 20 GiB. It is better, if possible, to create several smaller partitions than one very large one.

To make it easier to extend full partitions, the `debian-edu-fsautoresize` script is provided. When invoked, it reads the configuration from `/usr/share/debian-edu-config/fsautoresizetab`, `/site/etc/fsautoresizetab` and `/etc/fsautoresizetab`, and based on the rules provided in these files propose to extend partitions with too little free space. Without any arguments, it will only write the commands needed to extend the file system, and the argument `-n` is needed to actually extend the file systems.

11.3.1 Logical Volumn Management

Logical Volumn Management (LVM) enables resizing the partitions while they are mounted and in use. You can learn more about LVM in the [LVM HowTo](#).

11.4 Using volatile.debian.org

Since volatile.debian.org is a relatively new service, introduced with Debian Etch, it's not enabled on default installations.

11.4.1 What is `debian-volatile`?

Quoting from the webpage:

- Some packages aim at fast moving targets, such as spam filtering and virus scanning, and even when using updated data patterns, they do not really work for the full time of a stable release. The main goal of volatile is allowing system administrators to update their systems in a nice, consistent way, without getting the drawbacks of using unstable, even without getting the drawbacks for the selected packages. So `debian-volatile` will only contain changes to stable programs that are necessary to keep them functional.

11.4.2 How to use `volatile`

Since the `volatile` archive key is included in the `debian-archive-keyring` package, which is installed by default, you do not have to add this key manually to roots keyring anymore. Just add the following line to `/etc/apt/sources.list`:

```
deb http://volatile.debian.org/debian-volatile etch/volatile main
```

And run `aptitude update && aptitude upgrade`.

11.5 Using backports.org

You are running Debian Edu, because you prefer the stability of Debian Edu. It runs great, there is just one problem: sometimes software is a little bit more outdated as you like. This is where backports.org steps in.

Backports are recompiled packages from Debian testing (mostly) and Debian unstable (in a few cases only, e.g. security updates), so they will run without new libraries (wherever it is possible) on a stable Debian distribution like Debian Edu. **We recommend you to pick out single backports which fits your needs, and not to use all backports available there.** Please follow the instructions on <http://www.backports.org> to use these backports.

You will need to add the backports.org archive key to root's `gpg` keyring, so that `apt` can use this repository [securily](#). This is done by running these commands as root:

```
# install the debian-keyring securily:
aptitude install debian-keyring
# fetch the backports.org key insecurely:
gpg --keyserver pgpkeys.pca.dfn.de --recv-keys 16BA136C
# check securily if the key is correct and add it to root's keyring if it is:
gpg --keyring /usr/share/keyrings/debian-keyring.gpg --check-sigs 16BA136C && gpg ↔
  --export 16BA136C | apt-key add -
# update the list of available packages:
aptitude update
```

Then you can either use `aptitude -t etch-backports install <packagename>` to install or update packages once, or you can configure a package to be always installed from backports.org through `/etc/apt/preferences` which is described in the [instructions on backports.org](#).

The second variant has the advantage, that updates to backports are installed automatically when they are available. With the first variant you need to update manually.

11.6 Java

```
apt-get install sun-java5-plugin sun-java5-jre sun-java5-fonts
```

11.7 HowTos from wiki.debian.org

The HowTos from <http://wiki.debian.org/DebianEdu/HowTo/> are either user- or developer-specific. Let's move the user-specific HowTos over here (and delete them over there)! (But first ask the authors (see the history of those pages to find them) if they are fine with moving the howto and putting it under the GPL.)

- <http://wiki.debian.org/DebianEdu/HowTo/AutoNetRespawn>
- <http://wiki.debian.org/DebianEdu/HowTo/BackupPC>
- <http://wiki.debian.org/DebianEdu/HowTo/ChangeIpSubnet>
- <http://wiki.debian.org/DebianEdu/HowTo/SiteSummary>
- http://wiki.debian.org/DebianEdu/HowTo/Squid_LDAP_Authentication

12 HowTos for the desktop

12.1 KDE Kiosk mode

Two default profiles are included:

debian_edu_pupils (enabled for members of the students file group)

- customized set of icons appears on student desktops
- makes sure that the programs behind the desktop icons also show up in the kde panel
- adept is not started
- makes sure that students cannot start another kde session
- disables possibility to gain root access for students

debian_edu_root (enabled for the root user and members of the admins file group)

- adds a desktop icon to connect to the local webserver on tjener to provide easy access to all the administration programs

Note: : modifications to the profiles can be done using `kioskttool`. However, unless you follow the step below, your changes will be overwritten by upgrades.

If you want to modify the kiosk profiles, you can either copy the existing ones and modify them, or create new kiosk profiles in (for example) `/etc/kde3/kioskprofiles/` and enable them in `/etc-/kde-user-profile`. The kiosk tool will do this for you if you click "profile properties" and browse to a new folder.

If you don't want to use kioskmode, disable it in `/etc/kderc` or `/etc/kde-user-profile`. (FIXME: in which of the two?!)

12.2 Modifying the kdm login screen

In Debian/Etch, the way to customize the kdm login screen was changed. Now, it is done by adding a file in `/etc/default/kdm.d/` specifying variables to override the default.


Here is one example used to activate the theme in the `desktop-base` package:

```
USETHEME="true"
THEME="/usr/share/apps/kdm/themes/debian-moreblue"
```

See the code in `/etc/init.d/kdm` for information on how these variables are used.


12.3 Flash

To install the Adobe Flash Player web browser plugin, install the `flashplugin-nonfree` debian package. It requires a working Internet connection and will download the precompiled binary from Adobe.

 version 9.0.31.0.1 of the package do not work in Etch. This is expected to be fixed in the near future. [2007-11-30]

An alternative is to install `flashplayer-mozilla` from `debian-multimedia`. It work with both `konqueror` and `firefox`.

To install newer version of flash, download correct deb-package from <ftp://ftp.skolelinux.no/debian/pool/contrib/f/flashplugin-nonfree/> and install with `dpkg -i <package-name>` as root.

 **Warning :** The software you install has no trust path. Software installed with `apt-get` is cryptographically signed to ensure a trust path.

E.g. to install `flashplugin` for i386 architecture as root. Download via webbrowser or with `wget`:

```
wget ftp://ftp.skolelinux.no/debian/pool/contrib/f/flashplugin-nonfree/ ↵
flashplugin-nonfree_9.0.48.0.2_i386.deb
```

If you previously installed `flashplayer-mozilla`, you must remove this first:


```
apt-get remove flashplayer-mozilla
```

Then install:

```
dpkg -i flashplugin-nonfree_9.0.48.0.2_i386.deb
```

12.3.1 Sound with Flash in thin clients

If sound doesn't sound properly in thin clients when browsing certain pages (as `youtube.com`), it can be solved installing a package in the thin clients server. To do it, login as root in the server:

 **Warning :** The software you install has no trust path. Software installed with `apt-get` is cryptographically signed to ensure a trust path.

```
wget http://pulseaudio.vdbonline.net/libflashsupport/libflashsupport_1.0~2219-1 ↵
_i386.deb
```

Then:

```
dpkg -i libflashsupport_1.0~2219-1_i386.deb
```

12.4 Other useful plugins

After adding the multimedia repository:

```
apt-get install mozilla-mplayer mozilla-acroread acroread-plugins
```

12.5 Playing DVDs

libdvdcss is needed for playing most commercial DVDs. For legal reasons it's not included in Debian (Edu). If you are legally allowed to use it, you can use the packages from [debian-multimedia.org](http://www.debian-multimedia.org).

To use www.debian-multimedia.org visit the homepage and find a mirror, or just add

```
deb http://debian-multimedia.org etch main
```

to your sources list. Eventually install key package for multimedia (debian-multimedia-keyring).
Install multimedia and dvd libraries

```
apt-get install libdvdcss2 w32codecs
```

13 HowTos for networked clients

13.1 Thin Clients vs Diskless workstations

Instructions on how to enable diskless workstations / stateless workstations / lowfat clients / half-thick clients are available from <http://wiki.debian.org/DebianEdu/HowTo/LtspDisklessWorkstation>

13.2 LTSP in detail

13.2.1 lts.conf

To make special adaptations and configurations for specific thinclients, you can edit the file `/opt/ltsp/i386/etc/lts.conf`. Have a look at `/opt/ltsp/i386/usr/share/doc/ltsp-client/examples/lts.conf` to see examples and what parameters you can specify.

The default values is defined under `[default]`, to configure one client, specify which client using the client mac adress or ipadress like this `[192.168.0.10]`.

Example: To make the thinclient ltsp010 use 1280x1024 resolution, add something like this:

```
[192.168.0.10]
X_MODE_0 = 1280x1024
X_HORZSYNC = "60-70"
X_VERTREFRESH = "59-62"
```

somewhere below the default settings.

Depending on what changes you make, it may be necessary to restart X on the client (by pressing `alt+ctrl+backspace`) or restart the client.

To use ipaddresses in `lts.conf` you should add the client mac-address to your dhcp-server. Otherwise you should use the client mac-address directly in you `lts.conf` file.

13.2.2 Load balancing LTSP servers

It is possible to set up the clients to connect to one of several servers for load balancing. One way is listing several servers using `LDM_SERVER` in `lts.conf`. Another is by providing `/opt/ltsp/i386/usr/lib/ltsp/get_hosts` as a script printing one or more servers to connect to. In addition to this, each ltsp chroot need to include the ssh host key for each of the servers.



This feature was new in ltsp version 0.99debian12+0.0.edu.etch.8 to be included in 3.0r1.

13.2.3 Sound with LTSP clients

If the client has sound hardware support and alsa is used (currently, this is the default sound system in Debian), module `snd-pcm-oss` should be loaded by the client hardware to assure esd can find `/dev/dsp`. If it's not done automatically, this line:

```
MODULE_01 = "snd-pcm-oss"
```

should be added to the server in the `/opt/ltsp/i386/etc/lts.conf` file.

13.3 Connecting Windows machines to the network / Windows integration

13.3.1 Joining the domain

For Windows clients the Windows domain "SKOLELINUX" is available to be joined. A special service called Samba, installed on the main-server tjener, enables Windows clients to store profiles and userdata and also authenticates the users during the login.

In order to make Windows clients join the domain some (few) steps are required:

1. Create a user with membership in the "admins" group (if not already existing)
 - In order to be able to join the "SKOLELINUX" domain a member of the admins group needs to authorize the process. If not yet existing a user with that membership needs to be added (for more information see <link to lwat docu>). The user "root" will **not** work, because there is no password for root in Samba.
2. Configure the Windows client as static host
 - When joining a samba domain some special data is stored on the domain controller (tjener). This data is needed to recognize the Windows client later as being allowed to authenticate users. In order to enable Samba to store this data, Samba requires an static host configuration to be present. This could be added by using the LWAT web interface (see also <link to lwat>). When adding the static host configuration it is important to check the "Samba host" option, otherwise will lack the required data to be able to join the domain.
3. On the Windows client: Make sure the network and system configuration matches the data stored on tjener (hostname and ip configuration)
 - It's really important, that the Windows hosts has the same data, otherwise Samba will not find the host added in step 2.
4. Join the domain as usual using the user added in step 1.
 - Depending on the version and language of you Windows installation, you should find the configuration about the domain or workgroup of your system somewhere in the system properties. A freshly installed Windows system should belong to a default workgroup. You can join the domain by selecting "Domain" instead of "Workgroup" and entering SKOLELINUX as new domain. Pressing enter will then open a new window, where the login data of the user created in step 1. can be entered. After some time the Windows client opens a popup window with a welcome message. After the obligatory reboot the loginscreen offers a option to login into the domain.

Windows will sync the profile of domain users on every login and logout. Depending on how much data stored in the profile this could take some time. To minimize the time needed, one should deactivate things like local cache in browsers (you could use the squid proxycache installed on tjener instead) and save file into the H: volume instead of "Own files".

13.3.1.1 User groups in Windows Groupmaps must also be added for any other user groups you add through lwat . If you want your user groups to be available in Windows eg for netlogon scripts or other group dependant actions, you can add them using variations of the following command. Samba will function without these groupmaps, but Windows machines won't be group aware.

```
/usr/bin/net groupmap add unixgroup=students \  
    type=domain ntgroup="students" \  
    comment="All students in the school"
```

13.3.2 XP home

Users bringing in their XP home laptop can still connect to Tjener using their skolelinux credentials, provided the workgroup is set to SKOLELINUX. However, they may need to disable the windows firewall before Tjener will appear in Network Neighbourhood (or whatever its called now).

13.3.3 Managing roaming profiles

Roaming profiles contain user work environments, which include the desktop items and settings. Some examples of these environments are personal files, desktop icons, screen colors, mouse settings, window size and position, application configurations and network and printer connections. Roaming profiles are available wherever the user logs on, provided the server is available.

Since the profile is copied from the server to the machine during logon, and copied back to the server during logout. A large profile can make windows login/logout painfully slow. There can be many reasons for a large profile, but the most common problems is that users save their files on the windows desktop or in my documents instead of in their homedir. Also some badly designed programs use the profile for scratch space, and other data.

The educational approach One way to deal with to large profiles is to explain the situation for the users. tell them not to store huge files on the desktop and if they fail to listen it's their own fault when login is slow.

Tweaking the profile A different way to deal with the problem is to remove parts of the profile, and redirect other parts to regular file storage. This moves the work load from the users to the administrator, while adding the complexity of the installation. There are atleast three ways to edit the parts that are removed from the roaming profile.

13.3.3.1 Using machine policies you can edit the machines policy and copy it to all other computers.

1. pick a freshly installed windows computer, and run gpedit.msc
2. under the selection User Configuration -> Administrative Templates -> System -> User Profiles -> Exclude directories in roaming profile, you can enter a semicolon separated string of directories to exclude from the profile, the directories are internationalize and must be written in your own language the way they are in the profile. Example of directories to exclude are
 - log
 - Locale settings
 - Temporary Internet Files
 - My Documents
 - Application Data
 - Temporary Internet Files
3. Save your changes, and exit the editor.
4. Copy `c:\windows\system32\GroupPolicy` to all other windows machines.
 - It's a good idea to copy it to your windows os deployment system to have it included at install time.

13.3.3.2 Using global policies By using the windows policy editor (poedit.exe), you can create a Policy file (NTConfig.pol) file and put it in your netlogon share on tjener. This would have the advantage of working almost instantly on all machines. But is unfortunately not as easy as it sounds. And you can quite easily lock yourself out of your windows machines. If you have experience with this please elaborate here... FIXME

13.3.3.3 Editing Windows registry You can edit the registry of the local computer, and copy this registry key to other computers

1. Start the Registry Editor.
2. Navigate to `HKEY_CURRENT_USER\Software\Microsoft\Windows NT\CurrentVersion\Winlogon`
3. Use the menu Edit menu->New->String Value .
4. Call it `ExcludeProfileDirs`

5. Enter a semicolon sepatated string of paths to exclude. (same way as machine policy)

Now you can choose to export this registry key as a .reg file, Mark a selection, right click and select export. Save the file and you can double click it, or add it to a script to spread it to other machines.

Sources:

- <http://technet2.microsoft.com/windowsserver/en/technologies/featured/gp/default.msp>
- <http://www.samba.org/samba/docs/man/Samba-HOWTO-Collection/PolicyMgmt.html>
- <http://isg.ee.ethz.ch/tools/realmen/det/skel.en.html>
- <http://www.css.taylor.edu/~nehresma/samba.html>

13.3.4 Redirecting parts of profile

Sometimes just removing the directory from the profile is not enough. You may experience that users loose files because they mistakenly save things into my documents, when this is not saved in the profiles. Also you may want to redirect the directories some badly programed applications use to normal network shares.

13.3.4.1 Using machine policies Everything under Using machine policies above applies. You edit using gpedit.msc and copy the Policy to all machines The redirection should be available under User Configuration -> Windows Settings->Folder Redirection Things that can be nice to redirect are Desktop or My Documents.

One thing to remember is that if you enable folder redirection, those folders are automatically added to the synchroniced folders list. If you do not want this, you should also disable that in following

- User Configuration -> Administrative Templates -> Network -> Offline Files
- Computer Configuration -> Administrative Templates -> Network -> Offline Files

13.3.4.2 Using global policies FIXME

13.3.5 Avoiding roaming profiles

13.3.5.1 Using a local policy Using local policies you can disable roaming profile on individual machines. This is often wanted on special machines, for instance on dedicated machines, or machines that have lower then usual bandwith.

You can use the machine policy method describe above, the key is in

- Administrative Templates -> system -> User Profiles -> Only allow local profiles

13.3.5.2 Using global policies FIXME: what is the roaming profile key for the global policy editor

13.3.5.3 altering samba config By editing the samba config you can disable roaming profiles for the entire network. Perhaps everyone have their own dedicated machine? and nobody else is allowed to touch it. To disable the roaming profiles for the entire network you can alter the smb.conf file on tjener and unset the logon path and logon home variables, and restart samba.

```
logon path = ""  
logon home = ""
```

13.4 Remote Desktops with RDP, VNC, NX or Citrix

Some municipalities provide a remote desktop solution so that students and teachers can access Skolelinux from their home computer running Windows, Mac or Linux.

- RDP - the easiest way to access Windows terminal server. Just install the `rdesktop` package.
- VNC client (Virtual Network Computer) gives access to Skolelinux remotely. Just install the `xvnc-viewer` package.
- NX graphical client gives students and teachers access to Skolelinux remotely on Windows, Mac or Linux PC. One municipality in Norway has provided NX support to all their students since 2005. They report that the solution is stable.
- [Citrix ICA client HowTo](#) to access Windows terminal server from Skolelinux.

13.5 HowTos from wiki.debian.org

The HowTos from <http://wiki.debian.org/DebianEdu/HowTo/> are either user- or developer-specific. Let's move the user-specific HowTos over here (and delete them over there)! (But first ask the authors (see the history of those pages to find them) if they are fine with moving the howto and putting it under the GPL.)

- <http://wiki.debian.org/DebianEdu/HowTo/LocalDeviceLtspfs>
- <http://wiki.debian.org/DebianEdu/HowTo/LtspDisklessWorkstation>

14 HowTos for teaching and learning

14.1 moodle

Run `aptitude install moodle` as root to install moodle.

Some schools in France use moodle to keep track of students' facilities and credit points. FIXME: more examples, etc.

14.2 Monitoring pupils

Some schools use control tools like Controlaula or Italc to supervise their students. FIXME: explain how to install and use it.

```
apt-get install italc
```



Warning : monitoring humans might be unethical and illegal in your jurisdiction.

14.3 Restricting pupils network access

Some schools use squidguard or dansguardian to restrict internet access. FIXME: explain how to install and use it.



Warning : restricting access to information or freedom of speech might be unethical and illegal in your jurisdiction.

14.4 Installing swi-prolog on etch

`swi-prolog` was available in sarge, but was not part of etch. But you can just install the version from sarge on a etch system.



Warning : The software you install has no trust path. Software installed with `apt-get` is cryptographically signed to ensure a trust path.

```
# swi-prolog depends on libreadline4, also not in etch
wget http://ftp.de.debian.org/debian/pool/main/r/readline4/libreadline4_4.3-11 ←
_i386.deb
dpkg -i libreadline4_4.3-11_i386.deb

wget http://ftp.de.debian.org/debian/pool/main/s/swi-prolog/swi-prolog_5.2.13-1 ←
_i386.deb
dpkg -i swi-prolog_5.2.13-1_i386.deb
```

swi-prolog-doc is part of etch 😊

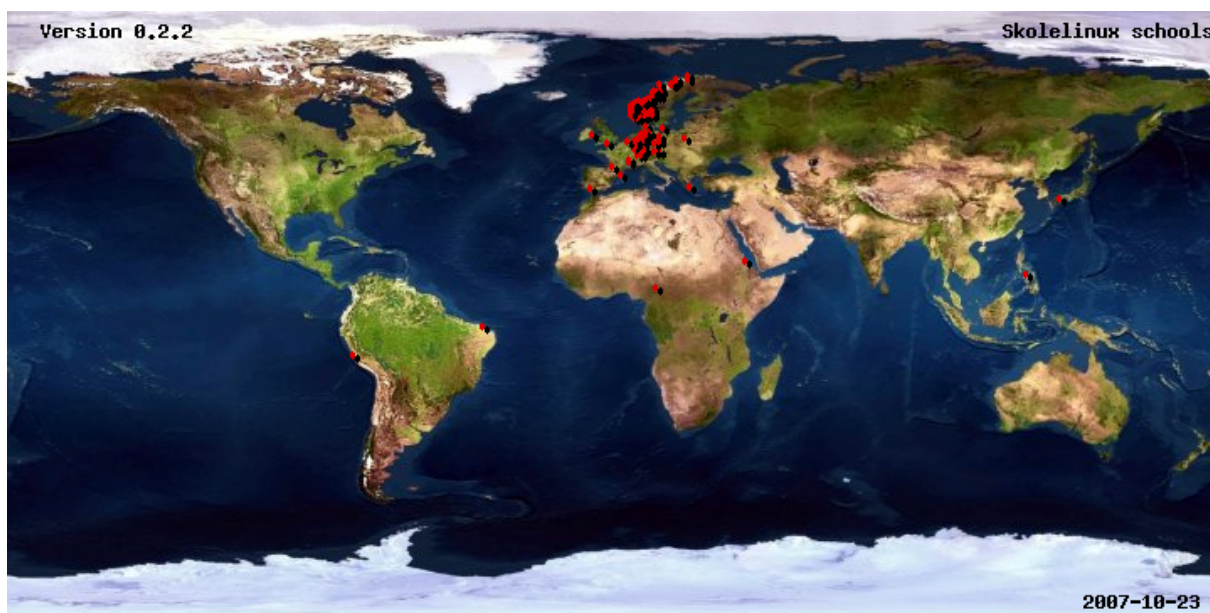
14.5 HowTos from wiki.debian.org

The HowTos from <http://wiki.debian.org/DebianEdu/HowTo/> are either user- or developer-specific. Let's move the user-specific HowTos over here (and delete them over there)! (But first ask the authors (see the history of those pages to find them) if they are fine with moving the howto and putting it under the GPL.)

- <http://wiki.debian.org/DebianEdu/HowTo/TeacherFirstStep> - incomplete but interesting

15 Contribute

15.1 Let us know you exist



There are Debian Edu users all over the world. A very easy form of contribution is to let us know you exist and use Debian Edu - this motivates us very much and therefore is already a valuable contribution.



The Debian Edu projects provide a database of schools and users of the system to help the users find each other, and also to have an idea about where the users of the distribution are located. Please let us know about your installation, by registering in this database. To register your school, [use this web form](#).

15.2 Contribute locally

Currently there are local teams in Norway, Germany, France and in the region of Extremadura in Spain. "Isolated" contributors and users exist in Greece, the Netherlands, Japan and elsewhere.

The [support chapter](#) explains and links to localized resources, as *contribute* and *support* are two sides of the same coin.

15.3 Contribute globally

Internationally we are organized in [different teams](#) working on different subjects.

The [developer mailing list](#) is most of the time our main medium for communication, though we have monthly meetings on IRC on #debian-edu on irc.debian.org and less frequently even real gatherings, where we meet each other in person.

A good way to learn what is happening in the development of Debian Edu is to subscribe to the [commit mailinglist](#).

15.4 Documentation writers and translators

This document needs your help! First and foremost, it is not finished yet: If you read it, you will notice various FIXMEs within the text. If you happen to know (a bit of) what needs to be explained there, please consider sharing your knowledge with us.

The source of the text is a wiki and can be edited with a simple webbrowser. Just go to <http://wiki.skolelinux.no/-DebianEdu/Documentation/Etch/> and you can contribute easily. Note: An user account is needed to edit the pages, you need to [create a wiki user](#) first.

Another very good way to contribute and to help users is by translating software and documentation. Information how to translate this document can be found in the [translation chapter](#) of this book. Please consider to help the translation effort of this book!

- ¹ We use wiki.skolelinux.no because the version of [moinmoin](#) on wiki.debian.org does not support exporting the wiki as docbook . Once it is upgraded, we will move this document over.

16 Support

16.1 Volunteer based support

16.1.1 in English

- <http://wiki.debian.org/DebianEdu>
- <https://init.linpro.no/mailman/skolelinux.no/listinfo/admin-discuss> - support mailing list
- #debian-edu on irc.debian.org - IRC channel, mostly development related, do not expect real time support even though it frequently happens 😊

16.1.2 in Norwegian

- <https://init.linpro.no/mailman/skolelinux.no/listinfo/bruker> - support mailing list
- <https://init.linpro.no/mailman/skolelinux.no/listinfo/linuxiskolen> - mailinglist for the development member organisation in Norway (FRISK)
- #skolelinux on irc.debian.org - IRC channel to support norwegian users

16.1.3 in German

- <http://www.skolelinux.de/mailman/listinfo/user> - support mailing list
- <http://wiki.skolelinux.de> - wiki with lots of HowTos etc.
- #skolelinux.de on irc.debian.org - IRC channel to support german users

16.1.4 in French

- <http://lists.debian.org/debian-edu-french> - support mailinglist

16.1.5 in Spanish

- <http://www.skolelinux.es> - spanish portal

16.2 Professional support

Lists of companies providing professional support are available from <http://wiki.debian.org/DebianEdu/Help/ProfessionalHelp>.

17 Copyright and authors

This document is written and copyrighted 2007 by Holger Levsen, Petter Reinholdtsen, Daniel Heß, Patrick Winnertz, Knut Yrvin, Ralf Gesellensetter, Ronny Aasen, Morten Werner Forsbring and José L. Redrejo Rodríguez released under the GPL2 or any later version. Enjoy!

If you add content to it, **please only do so if you are the author of it and plan to release it under the same conditions** ! Then add your name here and release it under the GPL2 or later version.

18 Translation copyright and authors

The spanish translation is copyrighted 2007 by José L. Redrejo Rodríguez and is released under the GPL2 or any later version.

The norwegian Bokmål translation is copyrighted 2007 by Petter Reinholdtsen and Håvard Korsvoll and is released under the GPL2 or any later version.

The german translation is copyrighted 2007 by Holger Levsen, Patrick Winnertz, Ralf Gesellensetter, Roland F. Teichert and Jürgen Leibner and is released under the GPL2 or any later version.

The italian translation is copyrighted 2007 by Claudio Carboncini and is released under the GPL2 or any later version.

19 Translations of this document

Fully translated versions of this document are not yet available. Incomplete translations for Norwegian Bokmål, Spanish and German exist.

19.1 HowTo translate this document

Translations of this document are kept in .po files like in many free software projects, read `usr/share/doc/debian-edu-doc/README.release-manual-translations` for more information on this. Please read also read this, if you want to start/help translating this document.

To commit your translations you need to be a member of the alioth project `debian-edu`. To translate, you just need to check out some files from `svn` (which can be done anonymously), create patches and send those to [debian-edu@lists.debian.org].

You can checkout the `debian-edu-doc` source anonymously with the following command (you need to have the `subversion` package installed for this to work):

- `svn co svn://svn.debian.org/svn/debian-edu/trunk/src/debian-edu-doc`

Then edit the `documentation/release-manual/release-manual.$CC.po` (where you replace `$CC` with your language code). There are many tools for translating available, we suggest to use `kbabel`.

Then you either commit the file directly to `svn` (if you have the rights to do so) or send the file to the mailinglist.

To update your local copy of the repository use the following command inside the `debian-edu-doc` directory:

- `svn up`

Read `/usr/share/doc/debian-edu-doc/README.release-manual-translations` to find information how to create a new .po file for your language if there is none yet, and how to update translations.

Please report any problems.

20 Appendix A - The GNU Public License

Note to translators: there is no need to translate the GPL license text.

20.1 Release manual for Debian Edu etch 3.0 Codename "Terra"

Copyright (C) 2007 Holger Levsen <holger@layer-acht.org> and others, see the [Copyright chapter](#) for the full list of copyright owners.

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA.

20.2 GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc. 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA. Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

20.3 TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
- b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.
- c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or

else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

- a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

20.4 END OF TERMS AND CONDITIONS

21 Appendix B - about Debian Edu Live CD/DVDs

21.1 Features of the Standalone image

- Almost all packages from the Standalone profile
- All packages from the laptop task
- The KDE desktop profile for students/pupils.

21.1.1 Activating translations and regional support

To activate a specific translation, boot using `locale=ll_CC.UTF-8` as a boot option, where `ll_CC.UTF-8` is the locale name you want. To activate a given keyboard layout, use the `keyb=KB` option where `KB` is the wanted keyboard layout. More information on this feature [is available from the live cd build script documentation](#). Here is a list of commonly used locale codes:

Language (Region)	Locale value	Keyboard layout
Norwegian Bokmål	nb_NO.UTF-8	no
Norwegian Nynorsk	nn_NO.UTF-8	no
German	de_DE.UTF-8	de
French (France)	fr_FR.UTF-8	fr
Greek (Greece)	el_GR.UTF-8	el
Japanese	ja_JP.UTF-8	jp
Northern Sami (Norway)	se_NO	no(smi)

A complete list of locale codes is available in `/usr/share/i18n/SUPPORTED`, but only the UTF-8 locales are supported by the live images. Not all locales have translations installed, though. The keyboard layout names can be found in `/usr/share/keymaps/i386/`.

21.1.2 Stuff to know

- the password for the user is "user", root has no passwd set.

21.1.3 Known issues with the image

- none known yet.

21.1.4 Download

The image is 1.2 GiB and available using [FTP](#), [HTTP](#) or rsync from <ftp.skolelinux.org> at `cd-etch-live/`.