GNU/Linux pre–installation checklist

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Revision History

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This document provides a checklist for installing GNU/Linux (hereafter referred to as Linux) as well as hints and tips along the way. Translations in Japanese, Dutch, and French are available in Section 1.3. The most current version of this checklist will be posted online at: http://members.tripod.com/~algolog/lnxchk.htm. Sgml source for this document is located here.

Table of Contents

1. Introduction....1
1.1. Copyright Information....1
1.2. Disclaimer....1
1.3. Translations....2
1.4. Acknowledgements....2
1.5. Who should read/use this?....2
1.6. What does this checklist (aim to) achieve?....3
1.7. Where do I find more about Linux?....3
1.8. Conventions used....3

2. Linux pre−installation checklist....5
2.1. Before you fill out the checklist....5
2.2. About you....5
2.3. General....6
2.4. Mouse....6
2.5. CD−ROM....6
2.6. Floppy drives....7
2.7. Tape drives....7
2.8. Disk drives....7
2.9. Video Display Units (Monitor and controller)....7
2.10. Networking....8
2.11. Printers....8
2.12. Laptops....8
2.13. Miscellaneous....9
2.14. Feedback....9

3. What next...?....10

1. Introduction

Are you a Linux newbie ? Are you a Linux guru ? In both cases, you will find this checklist of great help to you. How many times have you found yourself fumbling in the middle of a Linux installation process, because some vital information about the target hardware is not known ?

Have you ever crossed your fingers when you were asked by the installation procedure, a simple question, like: to which COM port is the mouse connected ?

Let's face it, all of us have, at one time or another, felt we should have been better prepared before starting to install Linux. Here is a simple solution, brought to you by Algologic Research & Solutions

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1.1. Copyright Information

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If you have any questions, please contact <linux-howto@metalab.unc.edu>

1.2. Disclaimer

No liability for the contents of this documents can be accepted. Use the concepts, examples and other content at your own risk. As this is a new edition of this document, there may be errors and inaccuracies, that may of course be damaging to your system. Proceed with caution, and although this is highly unlikely, the author(s) do not take any responsibility for that.

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Naming of particular products or brands should not be seen as endorsements.

You are strongly recommended to make a backup of your system before major installation and continue to do so at regular intervals.

1.3. Translations

This checklist is available in:

- Japanese as a text−only or html version.
- Dutch as html.
- French as html.

1.4. Acknowledgements

Algologic acknowledges with gratitude the useful suggestions and inputs from many members of the Linux community, for preparation of this checklist. This checklist is proof of the cooperation and goodwill which exists between Linux users. Algologic submits this checklist to the Linux community, as a humble tribute to the spirit of Linux. Many thanks to the following people:

- Mrs. Chie Nakatani for the translation into Japanese. You can also visit her home page by clicking here. <jeanne (at) mbox.kyoto−inet.or.jp>
- Pierre−Charles David for the translation into French. <david (at) essi.fr>
- Linux werkgroep HCC afdeling Groningen for the translation into Dutch.
- Jesse Goerz for converting the document to docbook sgml. <jgoerz (at) linuxfreemail.com>

1.5. Who should read/use this?

If you are planning to install Linux on somebody else's machine, or in a location which is not your own work place, you must absolutely get this checklist completed in advance. It is important to get this questionnaire answered by your host, so that you go adequately prepared for the installation.

If you are planning to organize an "Install fest" (we Indians call it "Linux mela"), ask your participants to come with this checklist answered.

Conversely, if you are going to an Install fest (aka Linux mela), to get Linux installed on your machine, do your home−work. Go with answers to this checklist.

If you are going to ask someone to come over and install Linux for you, send him/her this questionnaire with as many responses as you know.

If you are the D−I−Y type, you must start by answering all these questions, so that you can save time for enjoying your Linux!

1.6. What does this checklist (aim to) achieve?

This is a memory aid which may make installation of Linux a pleasant experience for you. It fills an important role in the promotion of Linux.

It will help you to be prepared with all the answers which may be needed during the course of installation of Linux on your machine or on anybody else's machine. Sometimes, it is very inconvenient and even impossible to find out some details in the middle of an installation procedure. This becomes all the more difficult when you are installing Linux on somebody else's machine, and in somebody else's office.

This checklist, when filled up, will help you go through your Linux documentation and verify in advance whether certain hardware is supported by the distribution you are planning to install. It will also help you to be prepared with the packages you would need to install, and the configuration choices which need to be done.

The idea is to reduce the chances of frustrating surprises.

This checklist is only for installing Linux on PCs. You may use this checklist as a model for other classes of machines (e.g.SUN, Alpha, ...) also.

1.7. Where do I find more about Linux?

If you want professional (PAID) help with Linux −− ask Algologic. Algologic Research & Solutions is listed in the official CONSULTANTS−HOWTO of the Linux Documentation Project.

This checklist does not give any details about hardware compatible with Linux, or other details about actually procuring or installing Linux. If you want details, please reference the Linux hardware howto, the Distribution howto, and the Installation howto, which are all located online at the Linux Documentation Project.

If you are the impatient type, and want help on installation directly, please reference Section 3 and skip the pre−installation checklist.

ATTENTION: We are actually overwhelmed by the number of general inquiries about procuring, installing and using Linux. We DO NOT answer such general mail. We strongly advise you to check out the Linux Documentation Project for finding other sources of help. Please DO NOT send us any general Linux questions.

1.8. Conventions used

WARNING!
Warnings are admonitions which if disregarded, will result in an inoperable *system* , which may or may not be recoverable.

Caution!
Cautions are admonitions which if disregarded, will result in an inoperable *application* or cause the loss of data, configuration files, or leave the system in an unbootable state.

Note: Notes state important facts which may be necessary to perform an operation.

Tip: Tips provide shortcuts or foresight to make performance of operations easier.

2. Linux pre−installation checklist

2.1. Before you fill out the checklist

Welcome to the world of Linux. Your first step in installing Linux on your PC will begin by answering a few simple questions about your hardware.

This checklist will make it easy for you and us to go through the installation, painlessly and without surprises. Please take your own time and fill up the following checklist. Wherever possible, and necessary, we have given some suggestions and hints, for your convenience.

If you don't know all the details, you should be able to find them in your computer's manuals. Or, ask your hardware vendor, or your local hardware "guru."

If you still have problems finding answers, don't worry −− you can just ignore any areas you don't know. Bring in your machine and ALL manuals you have. The installation may succeed with some trials and a lot of luck.

Remember, Linux, like many other software products, is a growing product. Some of your hardware may still not be supported in the version of Linux which is being installed.

Each question below can be identified by the section number followed by the question number (e.g. Section 2.3.1 is a question on processor speed). If you need any assistance/clarifications about the questions asked in this form, please specify the section identifier and the question number, and send an email to: `<algolog (at) hd1.vsnl.net.in>` It is imperative that you also include the version number of the checklist. The version number of this checklist can be found on the first page of the document.

Assumptions:

1. You are interested in installing Linux on a PC (386 upwards).
2. You have a CDROM drive on your PC. You have made sure that your proposed version of Linux supports this CDROM drive. Check latest version of the hardware howto at the Linux Documentation Project (LDP).
3. You have at least one 3½" floppy diskette drive on your system.
4. The 3½" diskette drive is a BOOTABLE drive.
5. You will keep readily available, three, bad−sector−free, formatted (3½"), blank diskettes, for use in the installation procedure.
6. If you wish to install Linux over a LAN, you have confirmed that your network interface card is supported by your version of Linux. Check latest version of the hardware howto at the LDP.

2.2. About you

1. Your Name _____
2. Your contact phone numbers:
3. Your email address _____
4. Have you used Linux before ? What distribution?
5. Have you used any version of Unix before ? Which one ? On what hardware platform ?
6. Is this an upgrade to an existing Linux distribution ?

7. What will be the end−use of this Linux installation ?
8. Do you wish to retain DOS/Win/any other OS along with Linux, on your system ?
9. Any other detail you want to add: _____
   _____

2.3. General

1. CPU type [i386, i486 DX2...]:
2. Bus type [ISA, EISA, VESA, PCI, MCA ...]:
3. Processor speed (MHz) ?
4. What size is your RAM (minimum 4 MB needed) ?
5. Do you want X Window System (i.e. Graphic User Interface for Linux) to be installed on your system ?
6. How many serial ports (COM ports) do you have on your PC ?
7. Are you planning to add dumb terminals to your PC ? How many ?
8. Please mention below, any additional details you wish to add:
   _____
   _____
   _____

2.4. Mouse

1. To which port is your mouse connected ? What IRQ ?
2. What type of mouse are you using [Microsoft, Busmouse, PS/2 ..] ?
3. How many buttons does the mouse have ?

2.5. CD−ROM

Tip: If you are not sure if your CDROM is bootable or not, power on the machine and go to BIOS settings (do not let the PC bootup). Look for bootable drive options in the BIOS settings.

1. What is the make and type of CDROM drive [e.g. IDE ATAPI, Sony, S−B Pro/Panasonic, SCSI, true IDE ..] ?
2. On which drive interface [1st IDE, 2nd IDE, 3rd IDE, 4th IDE, SCSI, proprietary interface] and which drive [drive 1 , drive 2, SCSI−ID 5] is the CDROM connected (e.g. drive 2 of 1st IDE, SCSI−ID 5 of built−in SCSI interface) ?
3. Is your CDROM a bootable drive ?

2.6. Floppy drives

1. Do you have a 3½" floppy drive?
2. Is the 3½" floppy drive a bootable drive ?
3. Do you have a 5¼" floppy drive?
4. Is the 5¼" drive a bootable drive ?

2.7. Tape drives

1. What type of tape drive do you have (can be NONE) [floppy interface type, SCSI, parallel port ..] ?
2. Do you have a secondary floppy controller for your tape drive?

2.8. Disk drives

Tip: At this point, you must be clear about how your Linux will be installed and on which disk etc. You must also be clear how your Linux will be booted (there are different possibilities). Read the Installation howto before you answer the following questions.

1. What type of drive do you have [IDE, SCSI, RLL, MFM ....] ?
2. How many partitions are there on your first disk drive ? Name, type, size ? Collect these details also for other disk drives you may have on this machine.
3. On which drive are you planning to install Linux (e.g. drive 2 of first IDE, or SCSI−ID 5 of built−in SCSI interface)
4. Can we re−partition your disk ? (All existing data will be lost)
5. Which partitions can be reformatted to become Linux partitions ? Note: All information recorded in this partition will be erased.
6. How much of disk space can you give for Linux [50 MB minimum] ?
7. What is your second hard disk (if any)?
8. What is your third hard disk (if any)?
9. What is your fourth hard disk (if any)?
10. What is your fourth hard disk (if any)?
11. Do you have any SCSI device ? Which SCSI controller do you have (if any)?
12. Do you plan to boot from your hard disk or floppy?
13. On which hard disk partition do you want LILO boot loader to reside?
14. Do you wish to retain the original boot sector/master boot record that is currently on your hard disk?
15. On which disk partitions will your Linux root reside?
16. Do you access the IDE drive in LBA mode (check your BIOS settings) ?

2.9. Video Display Units (Monitor and controller)

Tip: If you do not have good documentation on your VDU, try to look at the sticker

(nameplate) on the back of your VDU, you may find the answers to some of the questions given below.

1. What kind of monitor do you have [Monochrome, Color] [EGA, VGA, CGA ..] ? What make ?
2. Size of screen [14", 15", 19"] ? Is it an interlaced monitor ?
3. What are the resolutions, and number of colors possible on this monitor [600x480, 800x600, 1024x768]?
4. What is your monitor's vertical refresh rate / vertical sync. frequency (could be a range)?
5. What is your monitor's horizontal refresh rate / horizontal sync. frequency (could be a range) ?
6. Monitor's bandwidth ?
7. Video RAM size ?
8. VDU Control card : make and model ?
9. Chip set used in VDU control card ?
10. What RAMDAC do you have ?

2.10. Networking

1. Are you using an internal modem | external modem ?
2. What make ?
3. On which COM port is the modem connected ? What IRQ ?
4. What is the speed of the modem [bps] ?
5. What serial interface chip does your computer use (e.g. 8450, 16550C) ?
6. Is it a "Windows only" modem [WIN−MODEM...] ?
7. Which ethernet card do you have [10base2 or 10baseT; NONE for none] ? What type ?
8. Will this machine be a part of Internet or any Intranet ?
9. Will this machine use a dialup connection / PPP connection to an Internet/Intranet server ?
10. Will this machine be used as an Internet or Intranet server ?
11. What will be the hostname of your computer (e.g. penguin) ?
12. What will be the domain name, if any, of your computer (e.g. family_name.city.country)
13. What will be the IP address, if any, of your computer (e.g. 123.1.2.3) ?
14. What is the IP address of the DNS server (can be none) ?
15. What is the IP address of the default router (can be none) ?

2.11. Printers

1. Have you connected any printer on the parallel port of your PC ?
2. What is the type, make of the printer ?

2.12. Laptops

1. Number and type of PCMCIA slots on your Laptop ?
2. PC cards you plan to use ?
3. Built−in devices on your laptop (e.g. trackball, pointer, touchpad) ?
4. COM ports used for the above built−in devices ?

2.13. Miscellaneous

Tip: Try to make a consolidated hardcopy list of I/O addresses, IRQs, DMA−addresses used by the different devices in your machine. Take care to find out the configuration details of your VDU−driver card, Ethernet card, SCSI card etc.

1. Does your keyboard use a round connector (DIN−5) or PS/2 connector?
2. Do you plan to use keyboard mapping to any non−US keyboards [French, Greek, Cyrillic, ..] ?
3. Are you using any Plug & play devices ?
4. Are you using any sound card ? What card ? What I/O, IRQ, DMA does it use ?
5. How many ISA spare slots do you have ?
6. How many EISA spare slots do you have ?
7. How many VESA spare slots do you have ?
8. How many PCI spare slots do you have ?
9. How many other (describe) spare slots?
10. What kind of other removable media do you have (can be NONE)?
11. Do you have any other interesting hardware?
12. Please add any details you wish to highlight:

    _____
    _____
    _____

2.14. Feedback

Did you find this form clear ? Any suggestions for improvement ?

_____
_____
_____

Thanks for filling out the form. Please cross check the above responses, and keep the checklist handy at the time of installation.

3. What next...?

> Even the longest journey has to start with a small first−step.
>
> −−Confucious

Now that you have taken the first step of filling up the checklist, you would like to prepare for the real installation. Here are a few tips, for starters:

- A very good installation guide is here. You must visit this excellent site. It also gives tips to find answers for some of the questions asked in the pre−installation checklist (e.g. video cards, monitor, chipset, modem, ...etc.).
- The official Installation HOWTO is here.