

Udgivelsesnoter til Debian GNU/Linux 6.0 (squeeze), S/390

Debian-dokumentationsprojektet (<http://www.debian.org/doc/>)

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Kapitel 1

Introduktion

Dette dokument informerer brugere af Debian GNU/Linux-distributionen om større ændringer i version 6.0 (kodenavn squeeze).

Udgivelsesnoterne har information om, hvordan du sikkert opgraderer fra version 5.0 (kodenavn lenny) til den aktuelle udgave og informerer brugere om kendte problemstillinger, som kan opstå under opgraderingen.

Du kan se den seneste version af dette dokument på <http://www.debian.org/releases/squeeze/releasenotes>. Du kan sikre dig, at du læser den seneste version af dokumentet ved at tjekke datoen på den første side.

pas på



Bemærk at det er umuligt at skrive om alle kendte problemstillinger, og at udviklingen er baseret på en kombination af forventet forekomst og omfang.

Bemærk at vi alene understøtter og dokumenterer opgradering fra den forrige version af Debian (i dette tilfælde, opgradering fra 5.0). Hvis du har brug for at opgradere fra en ældre version, foreslår vi, at du læser tidligere udgaver af udgivelsesnoterne og først opgraderer til 5.0.

1.1 Rapporter fejl i dette dokument

Vi har forsøgt at teste alle trin i opgraderingen, som beskrives i det her dokument og at forudsæ alle de mulige problemstillinger, som en bruger kan møde.

Alligevel opstår fejl og hvis du mener, at du har fundet en siddan (forkert information eller information som mangler) i denne dokumentation, så indsend venligst en fejlrapport her [fejlrapporteringssystemet](http://bugs.debian.org/) (<http://bugs.debian.org/>) mod pakken `release-notes`. Du bør først kontrollere de [eksisterende fejlrapporter](http://bugs.debian.org/release-notes) (<http://bugs.debian.org/release-notes>) for at sikre dig, at fejlen ikke allerede er rapporteret. Du kan frit tilføje yderligere information til en eksisterende fejlrapport, hvis du kan bidrage med indhold til dette dokument.

Vi er taknemlige for og opfordrer til fejlrettelser til dokumentets kilder, som er vedhæftet fejlrapporten. Du kan finde yderligere information, der beskriver, hvordan du kan finde kilderne til dette dokument på Afsnit [1.3](#).

1.2 Bidrag med opgraderingsrapporter

Vi er glade for al information fra brugere, som har forbindelse til opgraderinger fra lenny til squeeze. Hvis du vil dele din information med os, så kan du sende denne ind via en fejlrapport i [fejlrapporteringssystemet](http://bugs.debian.org/) (<http://bugs.debian.org/>) mod pakken `upgrade-reports` med dine erfaringer. Vi vil bede dig om, at du komprimerer eventuelle bilag som inkluderes (med `gzip`).

Inkluder følgende information når du indsender din opgraderingsrapport:

- Status p?? din pakkebase f??r og efter opgraderingen: **dpkgs** statusdatabase er tilg??ngelig i `/var/lib/dpkg/status` og **apts** statusinformation for pakker er i `/var/lib/apt/extended_states`. Du b??r udf??re en sikkerhedskopi f??r opgraderingen hvilket beskrives p?? Section 4.1.1, men du kan ogs?? finde sikkerhedskopier af `/var/lib/dpkg/status` i `/var/backups`.
- Sessionslog fra **script**, l??s mere om dette i Section 4.4.1.
- Dine **apt**-logge, tilg??ngelige i `/var/log/apt/term.log` eller dine **aptitude**-logge tilg??ngelige i `/var/log/aptitude`.

bemærk



Du b??r gennemg?? og fjerne al personlig og/eller fortrolig information fra logge, f??r du inkluderer dem i en fejlrapport, da informationen vil blive udgivet i en offentlig database.

1.3 Kilder til dette dokument

Kilden til dette dokument er i formatet . HTML-versionen er oprettet med `docbook-xsl` og `xsltproc`. PDF-versionen er oprettet med `dblatex` eller `xmlroff`. Kilder for udgivelsesbem??rkningerne er tilg??ngelige i SVN-arkivet for *Debian Documentation Project*. Du kan anvende [internetbrugerfladen](http://svn.debian.org/viewsvn/ddp/manuals/trunk/release-notes/) (<http://svn.debian.org/viewsvn/ddp/manuals/trunk/release-notes/>) for at tilg?? disse filer individuelt via internettet og se ??ndringer i dem. For yderligere information om hvordan SVN tilg??s, s?? l??s [SVN-siderne for Debian Documentation Project](http://www.debian.org/doc/cvs) (<http://www.debian.org/doc/cvs>).

Kapitel 2

Nyt i Debian GNU/Linux 6.0

Der er mere om dette emne på [wikien](http://wiki.debian.org/NewInSqueeze) (<http://wiki.debian.org/NewInSqueeze>).

I denne udgave er den officielle understøttelse af arkitekturene **HP PA-RISC ('hppa')** (<http://lists.debian.org/debian-devel-announce/2010/09/msg00008.html>), Alpha ('alpha') og ARM ('arm') stoppet.

Følgende er de officielt understøttede arkitekturer i Debian GNU/Linux squeeze:

- 32 bit PC ('i386')
- SPARC ('sparc')
- PowerPC ('powerpc')
- MIPS ('mips' (big endian) og 'mipsel' (little endian))
- Intel Itanium ('ia64')
- S/390 ('s390')
- 64 bit PC ('amd64')
- ARM EABI ('armel')

Ud over de officelt understøttede arkitekturer introducer Debian GNU/Linux squeeze GNU/kFreeBSD-porteringer ('kfreebsd-amd64' og 'kfreebsd-i386') som en forsmag på ny teknologi. Det er første gang at porteringer, der ikke har base i linux-kernen, er medtaget i en Debian-udgave. Porteringerne bruger i stedet en FreeBSD-kerne sammen med et GNU-brugermiljø. Brugere af disse versioner må advares om, at disse porteringer stadig er i gang med at nå op på den uovertrufne kvalitet i vores Linux-porteringer, og at visse avancerede skrivebordsfunktioner ikke understøttes endnu. Dog er understøttelsen af almindelige serverprogrammer stærk, så egenskaberne fra Linux-baserede Debian-versioner udvides med de unikke egenskaber, der kendes fra BSD-verdenen. Det er første gang, at en Linux-distribution er blevet udvidet til også at tillade brug af en kerne, der ikke er Linux.

Du kan læse mere om porteringsstatus og porteringsspecifik information om din arkitektur på [Debi-ans websider om porteringer](http://www.debian.org/ports/) (<http://www.debian.org/ports/>).

2.1 Nyt for S390

32 bit s390-kernen leveres ikke længere. Derfor understøttes kun maskinel med z/Architecture-understøttelse gennem kernevarianten s390x.

2.2 Nyt i distributionen

Denne nye udgave af Debian leveres med meget mere software end dens forgænger lenny. Distributionen indeholder over 10352 nye pakker, og i alt 29050 pakker. Det meste af softwaren i distributionen er blevet opdateret: over 15436 softwarepakker (dette svarer til 67 % af alle pakker i lenny). Et betydeligt antal

pakker (over 4238, 18 % af alle pakker i lenny) er af forskellige grunde blevet fjernet fra distributionen. Du vil ikke se opdateringer for disse pakker, og de markeres 'forældet' i pakkehåndteringsprogrammer.

Med denne udgave skifter Debian GNU/Linux fra X.Org 7.3 til X.Org 7.5.

Debian GNU/Linux leveres igen med adskillige skrivebordsprogrammer og -miljøer. Bl.a. inkluderes nu GNOME 2.30¹, KDE 4.4.5, Xfce 4.6.2 og LXDE 0.5.0. Produktivitetsprogrammer er også blevet fornyet, blandt andet kontorprogramsamlingerne OpenOffice.org 3.2.1 og KOffice 2.2.1, samt GNUcash 2.2.9, GNUMERIC 1.10.8 og Abiword 2.8.2.

Af opdateringer af andre skrivebordsprogrammer kan nævnes opgraderingen til Evolution 2.30.3 og Pidgin 2.7.3. Mozilla-programsamlingen er også blevet opdateret: iceweasel (version 3.5.13) er webbrowseren Firefox uden varemærketilknytning, og icedove (version 3.0.7) er e-mail-klienten Thunderbird uden varemærketilknytning.

Blandt meget andet inkluderer denne udgave følgende opdateringer:

Pakker	Version i 5.0 (lenny)	Version i 6.0 (squeeze)
Apache	2.2.9	2.2.16
BIND DNS-server	9.6.0	9.7.1
Cherokee - webserver	0.7.2	1.0.8
Courier - MTA	0.60.0	0.63.0
Dia	0.96.1	0.97.1
Ekiga - VoIP-klient	2.0.12	3.2.7
Exim som standard-e-mail-server	4.69	4.72
GNU Compiler Collection som standardcompiler	4.3.2	4.4.5
GIMP	2.4.7	2.6.10
GNU C-programbiblioteket	2.7	2.11.2
lighttpd	1.4.19	1.4.28
maradns	1.3.07.09	1.4.03
MySQL	5.0.51a	5.1.49
OpenLDAP	2.4.11	2.4.23
OpenSSH	5.1p1	5.5p1
PHP	5.2.6	5.3.2
Postfix MTA	2.5.5	2.7.1
PostgreSQL	8.3.5	8.4.5
Python	2.5.2	2.6.6
Samba	3.2.5	3.5.5
Tomcat	5.5.26	6.0.28

Debian understøtter stadig Linux Standard Base (LSB) version 3.2.

2.2.1 Cd, dvd og Blu-ray

Den officielle Debian GNU/Linux-distribution leveres nu på 7-8 binære dvd'er eller 44-53 binære cd'er (afhængigt af arkitektur) og 6 dvd'er eller 33 cd'er med kildekode. Herudover findes der en dvd til *flere arkitekturer* med en begrænset del af udgivelsen for arkitekturerne amd64 og i386 sammen med kildekoden. Debian GNU/Linux udgives også som Blu-ray diskaftryk på (BD): 2 diskaftryk for hver af arkitekturerne amd64 og i386, eller ét med kildekoden. Af pladshensyn er visse meget store pakker udeladt fra cd'erne, men de findes på dvd og Blu-ray, da der er bedre plads til dem her.

En ny funktion i squeeze er understøttelse af isohybrid på cd'erne, dvd'erne og BD'erne til i386- og amd64-arkitekturerne. Før var det nødvendigt at følge særlige procedurer for at kunne starte et system fra en usb-nøgle - nu skal opstartsaftrykket blot skrives direkte til usb-nøglen. Se afsnittet "Sådan forberedes filer til opstart fra usb-nøgle" i [Installeringsvejledningen](http://www.debian.org/releases/stable/installmanual) (<http://www.debian.org/releases/stable/installmanual>) for yderligere information.

¹ Med visse moduler fra GNOME 2.32.

2.2.2 Firmware er flyttet til sektionen non-free

Visse drivere, der er inkluderet i Linux-kernen, indeholdt før firmware, der ikke er fri. Med squeeze er denne firmware blevet flyttet til separate pakker i arkivets sektion non-free, f.eks. `firmware-linux`. Hvis pakker af denne type installeres, indlæses firmwared automatisk, når det er nødvendigt.

2.2.3 Pakkehåndtering

Det foretrukne program til interaktiv pakkehåndtering fra en terminal er **aptitude**. Som ikke-interaktiv kommandolinjegrænseflade til pakkehåndtering anbefales **apt-get**. **apt-get** er også det foretrukne program til at opgradere mellem større udgivelser. Hvis du stadig bruger **dselect**, bør du skifte til **aptitude**, der er den officielle brugerflade til pakkehåndtering.

I squeeze installerer APT anbefalede pakker som standard². Dette kan ændres ved at føje følgende linje til `/etc/apt/apt.conf`:

```
APT::Install-Recommends "false";
```

2.2.4 Afhængighedsbestemt opstart

En vigtig forbedring i Debian GNU/Linux's opstart er introduktionen af afhængighedsbaseret bestemmelse af opstartsskvens og parallel opstart. Denne funktionalitet er aktiveret som standard ved nyinstalleringer, og den vil blive aktiveret ved opgradering fra lenny, når det er muligt.

Denne funktion aktiveres ved at `insserv` fra `sysv-rc` bliver brugt til at bestemme rækkefølgen for `init.d`-scripts efter deres erklærede afhængigheder³. En vedvarende indsats for at tilpasse alle opstartsscriptene i distributionens pakker og i selve opstartssystemet har gjort dette muligt.

Med afhængighedsbaseret bestemmelse af opstartsskvens er det nu også muligt at udføre systemopstartsscripts parallelt, og dette vil i de fleste tilfælde gøre opstartprocessen hurtigere. Denne funktionalitet er aktiveret som standard i nyinstalleringer og opgraderinger, hvor det er muligt. Hvis du vil deaktivere den, skal du angive

```
CONCURRENCY=none
```

i `/etc/default/rcS`. Yderligere information om denne funktionalitet findes i `/usr/share/doc/insserv/README.Debian`.

2.2.5 Ensartede tastaturindstillinger

I den nye udgave er tastaturindstillingerne blevet samlet, så både konsol og Xorg-serveren bruger de samme indstillinger. Tastaturindstillingerne defineres nu i konfigurationsfilen `/etc/default/keyboard`, og disse indstillinger tilsidesætter tastaturindstillingerne fra Xorgs konfigurationsfil.

Pakken `console-setup` håndterer nu tastaturet i begge miljøer og skrifttypeindstillingerne i konsollen. Du kan ændre tastaturindstillinger med mere ved at udføre **`dpkg-reconfigure keyboard-configuration`** eller ved at redigere konfigurationsfilen `/etc/default/keyboard` manuelt.

2.2.6 Indstilling af grafiktilstand er flyttet til kernen

Indstilling af grafiktilstand ('mode') for de mest gængse chipset til skrivebordscomputere (fra Intel, ATI/AMD og NVIDIA) er blevet flyttet fra de respektive Xorg-drivere til Linux-kernen. Dette har flere fordele, blandt andet:

- Skift til og fra hviletstand er mere stabil
- Grafikenheder kan bruges uden X
- Hurtigere skift mellem virtuelle terminaler
- Tekstkonsol i oprindelig tilstand

² Denne ændring indebærer at kravene til diskplads til opgavepakker, der vælges i installeringsprogrammet til debian også er blevet større. Yderligere information kan findes i afsnittet "Nødvendig diskplads til opgavepakker" i [Installeringsvejledningen](http://www.debian.org/releases/stable/installmanual) (<http://www.debian.org/releases/stable/installmanual>).

³ Afhængighederne erklæres med det teksthoved-format, der er specificeret i Linux Standard Base (LSB)

Yderligere oplysninger kan findes under Afsnit 5.7 og i [Debian's wiki](http://wiki.debian.org/KernelModesetting) (<http://wiki.debian.org/KernelModesetting>).

2.2.7 LDAP-understøttelse

Denne udgave af Debian indeholder flere muligheder til at implementere autentificering med LDAP på klientsiden. Brugere af pakkerne `libnss-ldap` og `libpam-ldap` bør overveje at opgradere til `libnss-ldapd` og `libpam-ldapd`.

Disse nyere pakker uddelegerer LDAP-forespørgslerne til en central, upriveligeret dæmon (`nslcd`) som sikrer opdeling mellem processen, der bruger LDAP-oplysningerne, og dæmonen, der udfører LDAP-forespørgslerne. Denne opdeling gør håndtering af sikrede LDAP-forbindelser og LDAP-autentificeringsinformation enklere, giver en enklere mekanisme til at udføre skift til andre forbindelser ved fejl og fejlsøgning, og gør det i de fleste programmer unødvendigt at indlæse LDAP- og tilhørende programbiblioteker.

Opgradering til `libnss-ldapd` og `libpam-ldapd` bør være let, da eksisterende konfigurationer for det meste bliver genbrugt. Kun ved avanceret konfiguration er manuel redigering nødvendig.

Disse pakker mangler i øjeblikket understøttelse for indlejrede grupper og understøtter kun ændring af adgangskode ved hjælp af LDAP `password modify extended operation`.

2.2.8 Sektionen `stable-updates`

Nogle pakker fra `proposed-updates` gøres også tilgængelige gennem `squeeze-updates`-mekanismen. Denne sti bruges til opdateringer, som mange brugere vil installere på deres system, før den næste punkttopdatering laves. Det kan være opdateringer til viruskannere og tidszonedata. Alle pakker fra `squeeze-updates` medtages senere i en punkttopdatering.

Bemærk at dette træder i stedet for den funktionalitet, som [volatile.debian.org-arkivet](http://volatile.debian.org/) (<http://volatile.debian.org/>) gav.

For at bruge pakker fra `squeeze-updates` kan du føje følgende linjer til filen `sources.list`:

```
deb http://mirrors.kernel.org/debian squeeze-updates main contrib
deb-src http://mirrors.kernel.org/debian squeeze-updates main contrib
```

Næste gang, du udfører kommandoen `apt-get update`, vil systemet opdage pakkerne i sektionen `squeeze-updates`, og de tages i betragtning, når der ledes efter pakker, der skal opdateres.

Note that if `APT::Default-Release` is set in your `/etc/apt/apt.conf` (or in any of `/etc/apt/apt.conf.d/*`), then, in order for automatic upgrades to work, it is necessary to add the following configuration block into `/etc/apt/preferences` (see `apt_preferences(5)` for more information):

```
Package: *
Pin: release o=Debian GNU/Linux,n=squeeze-updates
Pin-Priority: 990
```

Når en ny pakke gøres tilgængelig i `squeeze-updates`, bliver det offentliggjort på postlisten [debian-stable-announce](http://lists.debian.org/debian-stable-announce/) (<http://lists.debian.org/debian-stable-announce/>).

2.2.9 backports.org/backports.debian.org

Tjenesten, der gives i backports.org-arkiverne er blevet integreret i Debians infrastruktur, og er nu en [officiel Debian-tjeneste](http://www.debian.org/News/2010/20100905) (<http://www.debian.org/News/2010/20100905>), der udbydes på backports.debian.org (<http://backports.debian.org/>).

2.3 Omfattende understøttelse af neuroradiologisk forskning

Debian GNU/Linux 6.0 er den første GNU/Linux-distribution nogensinde, der tilbyder omfattende understøttelse af MRI-baseret neuroradiologisk forskning. Distributionen kommer med opdateret software til strukturel billedanalyse (for eksempel `ants`), diffusion imaging og traktografi (for eksempel `mrtrix`), stimuluslevering (for eksempel `psychopy`), MRI-sekvensudvikling (for eksempel `odin`), lige som det også kommer med et antal alsidige programsamlinger til databehandling og -analyse (for eksempel `nipype`). Herudover understøtter denne udgave alle væsentlige neuroradiologiske billedformater. Se opgavepakkesiderne [Debian Science](http://blends.aliioth.debian.org/science/tasks/neuroscience-cognitive) (<http://blends.aliioth.debian.org/science/tasks/neuroscience-cognitive>) og [Debian Med](http://debian-med.aliioth.debian.org/tasks/) (<http://debian-med.aliioth.debian.org/tasks/>).

imaging) for en udtømmende liste over software, der er medtaget og [NeuroDebian](http://neuro.debian.net) (<http://neuro.debian.net>) webside for yderligere oplysninger.

Kapitel 3

Installeringsystemet

Debian Installer er Debians officielle installeringsystem. Det tilbyder en række forskellige installeringsmetoder. Hvilke af disse som fungerer på dit system, afhænger af din platform.

Aftryk af installeringsprogrammet til squeeze kan findes sammen med installeringsguiden på [Debi-ans hjemmeside](http://www.debian.org/releases/stable/debian-installer/) (<http://www.debian.org/releases/stable/debian-installer/>).

Installeringsguiden findes også inkluderet på den første cd-/dvd-skive af de officielle cd-/dvd-skiver på:

```
/doc/install/manual/da/index.html
```

Du vil måske også læse [errata](http://www.debian.org/releases/stable/debian-installer/index#errata) (<http://www.debian.org/releases/stable/debian-installer/index#errata>) til debian-installer hvor en liste over kendte problemer findes.

3.1 Hvad er nyt i installeringsystemet?

Det er sket en hel del udvikling af Debian Installer, siden dens første officielle udgivelse med Debian GNU/Linux 3.1 (sarge) som resulterede i både forbedret understøttelse af hardware, samt i et antal nye, spændende funktioner.

I disse Kommentarer til udgaven, vil vi kun opliste de større ændringer i installeringsprogrammet. Læs udgivelsesnoterne til beta- og RC-udgaverne i [nyhedsarkivet](http://www.debian.org/devel/debian-installer/News/) (<http://www.debian.org/devel/debian-installer/News/>) til Debian Installer, hvis du er interesseret i en oversigt over detaljerede ændringer siden lenny.

3.1.1 Større ændringer

Platforme som ikke længere er understøttet Understøttelse af arkitekturene Alpha ("alpha"), ARM ("arm") og HP PA-RISC ("hppa") er fjernet fra installeringsprogrammet. ARM-arkitekturen, fordi den er blevet uaktuel pga. ARM EABI-porteringen ("armel").

Hjælp under installeringsprocessen Dialogerne, der vises under installeringsprocessen, tilbyder nu en hjælpefunktion. Selv om den ikke anvendes i alle dialoger, så vil denne egenskab blive anvendt oftere i komende udgaver. Dette vil forbedre brugeroplevelsen under installeringsprocessen, specielt for nye brugere.

Installering af anbefalede pakker Som standard vil systemet installere alle anbefalede pakker, gennem hele processen, bortset fra nogle bestemte situationer hvor de generelle indstillinger giver et uønsket resultat.

Automatisk installering af hardware-specifikke pakker Systemet vil automatisk vælge at installere hardware-specifikke pakker, når disse er relevante. Dette opnås ved at bruge `discover-pkginstall` fra pakken `discover`.

Understøttelse af installering af tidligere udgaver Installeringsystemet kan også bruges til at installere tidligere udgaver, eksempelvis lenny.

Forbedret valg af filspejl Installeringsystemet giver bedre understøttelse af installering af squeeze så vel som lenny og tidligere udgaver (ved at bruge archive.debian.org). Herudover kontrollerer systemet at det valgte filspejl fungerer og indeholder den seneste udgave.

Ændringer i partitionsfunktionerne Denne udgave af installeringsystemet understøtter også filsystemet ext4, og det forenkler også oprettelse af RAID, LVM og krypteringsbeskyttede partitioner. Understøttelse af filsystemet reiserfs indgår for tiden ikke som standard, det kan dog indlæses som et valgfrit alternativ.

Understøttelse af indlæsning af firmware-debianpakker under installeringen Det er nu muligt at indlæse firmwarepakker fra installeringsmediet i tilgift til flytbare medier, dette muliggør oprettelse af PXE-aftryk samt cd-/dvd-aftryk med pakker der har indlejret software.

Fra og med Debian 6.0 er ikke-fri firmware-software flyttet fra hovedarkivet. For at installere Debian på hardware som skal bruge ikke-fri firmware-software, kan du enten selv tilvejebringe denne under installeringen, eller bruge en forberedt cd/dvd med softwaren inkluderet. Læs mere på **Få fat i Debian** (<http://www.debian.org/distrib>) på Debians hjemmeside for yderligere oplysninger.

Nye sprog Takket være den store indsats fra oversættere, kan Debian GNU/Linux nu installeres på 70 sprog. Dette er syv sprog flere end i lenny. De fleste sprog er tilgængelige i såvel det tekstbaserede som i det grafiske installeringsprogram, mens visse kun er tilgængelige i det grafiske installeringsprogram..

Sprog som er tilføjet i denne udgave, omfatter:

- Asturisk, estisk, islandsk, kazakisk og persisk er føjet til det grafiske og det tekstbaserede installeringsprogram.
- Kannada, lao, sinhala og telugu er føjet til det grafiske installeringsprogram.
- Thai var tidligere kun tilgængeligt i det grafiske installeringsprogram, men er nu også føjet til det tekstbaserede installeringsprogram..

På grund af manglende opdateringer, er disse to sprog ikke længere understøttet i denne udgave: wolof og walisisk.

Forbedret lokaliseringsvalg Valg af lokaliseringsrelaterede værdier (sprog, sted og lokalindstilling) er nu mindre knudret og mere fleksibelt. Brugere vil nemmere kunne ændre systemet efter deres lokaliseringsbehov, samtidig med at det er nemt at anvende for brugere der ønsker at vælge de lokaliserings-indstillinger som er almindeligst for det land de bor i.

Desuden er konsekvensen af valg af lokaliseringsindstillinger (eksempelvis tidszone, tastaturudlægning og valg af filspejl) nu mere åbenlyse for brugeren.

Installering med et live-system Installeringsprogrammet understøtter nu live-systemer på to måder. For det første kan et installeringsprogram, som er inkluderet på mediet med live-systemet, bruge indholdet af live-systemet i stedet for en regulær installering af basissystemet. For det andet kan installeringsprogrammet nu startes, mens live-systemet kører, hvilket tillader brugeren at gøre andre ting med live-systemet under installeringen. Begge egenskaber er indbyggede i de Debian Live-aftryk som findes på <http://cdimage.debian.org/>.

3.1.2 Automatisk installering

Nogle ændringer som er nævnt ovenover indebærer også ændringer i understøttelsen af automatisk installering med forindstillede filer. Dette betyder at hvis du har forindstillede filer, der fungerer med installeringsprogrammet til lenny, så kan du ikke forvente at disse fungerer med det nye installeringsprogram, uden at de redigeres.

Installeringsguiden (<http://www.debian.org/releases/stable/installmanual>) har et separat bilag med omfattende dokumentation for, hvordan forindstillinger skal bruges.

Kapitel 4

Upgrades from Debian 5.0 (lenny)

4.1 Preparing for the upgrade

We suggest that before upgrading you also read the information in Kapitel 5. That chapter covers potential issues not directly related to the upgrade process but which could still be important to know about before you begin.

4.1.1 Back up any data or configuration information

Before upgrading your system, it is strongly recommended that you make a full backup, or at least back up any data or configuration information you can't afford to lose. The upgrade tools and process are quite reliable, but a hardware failure in the middle of an upgrade could result in a severely damaged system.

The main things you'll want to back up are the contents of `/etc`, `/var/lib/dpkg`, `/var/lib/apt/extended_states` and the output of `dpkg --get-selections "*" (the quotes are important)`. If you use **aptitude** to manage packages on your system, you will also want to back up `/var/lib/aptitude/pkgstates`.

The upgrade process itself does not modify anything in the `/home` directory. However, some applications (e.g. parts of the Mozilla suite, and the GNOME and KDE desktop environments) are known to overwrite existing user settings with new defaults when a new version of the application is first started by a user. As a precaution, you may want to make a backup of the hidden files and directories ("dotfiles") in users' home directories. This backup may help to restore or recreate the old settings. You may also want to inform users about this.

Any package installation operation must be run with superuser privileges, so either log in as `root` or use **su** or **sudo** to gain the necessary access rights.

The upgrade has a few preconditions; you should check them before actually executing the upgrade.

4.1.2 Inform users in advance

It's wise to inform all users in advance of any upgrades you're planning, although users accessing your system via an **ssh** connection should notice little during the upgrade, and should be able to continue working.

If you wish to take extra precautions, back up or unmount the `/home` partition before upgrading.

You will have to do a kernel upgrade when upgrading to squeeze, so a reboot will be necessary.

4.1.3 Prepare for downtime on services

There might be services that are offered by the system which are associated with packages that will be included in the upgrade. If this is the case, please note that, during the upgrade, these services will be stopped while their associated packages are being replaced and configured. During this time, these services will not be available.

The precise downtime for these services will vary depending on the number of packages being upgraded in the system, and it also includes the time the system administrator answers the configuration

questions from different package upgrades (if any). Notice that if the upgrade process is left unattended and the system requests input throughout the upgrade there is a high possibility of services being unavailable¹ for a significant period of time.

If the system being upgraded provides critical services for your users or the network², you can reduce the downtime if you do a minimal system upgrade, as described in Section 4.4.4, followed by a kernel upgrade and reboot (see Section 4.4.5), and then upgrade the packages associated with your critical services. Upgrade these packages prior to doing the full upgrade described in Section 4.4.6. This way you can ensure that these critical services are running and available through the full upgrade process, and their downtime is reduced.

4.1.4 Prepare for recovery

Because of the many changes in the kernel between lenny and squeeze regarding drivers, hardware discovery and the naming and ordering of device files, there is a real risk that you may experience problems rebooting your system after the upgrade. A lot of known potential issues are documented in this and the next chapters of these Release Notes.

For that reason it makes sense to ensure that you will be able to recover if your system should fail to reboot or, for remotely managed systems, fail to bring up networking.

If you are upgrading remotely via an `ssh` link it is highly recommended that you take the necessary precautions to be able to access the server through a remote serial terminal. There is a chance that, after upgrading the kernel and rebooting, some devices will be renamed (as described in Section 4.6.2) and you will have to fix the system configuration through a local console. Also, if the system is rebooted accidentally in the middle of an upgrade there is a chance you will need to recover using a local console.

The most obvious thing to try first is to reboot with your old kernel. However, for various reasons documented elsewhere in this document, this is not guaranteed to work.

If that fails, you will need an alternative way to boot your system so you can access and repair it. One option is to use a special rescue image or a Linux live CD. After booting from that, you should be able to mount your root file system and `chroot` into it to investigate and fix the problem.

Another option we'd like to recommend is to use the *rescue mode* of the squeeze Debian Installer. The advantage of using the installer is that you can choose between its many installation methods for one that best suits your situation. For more information, please consult the section "Recovering a Broken System" in chapter 8 of the [Installation Guide](http://www.debian.org/releases/stable/installmanual) (<http://www.debian.org/releases/stable/installmanual>) and the [Debian Installer FAQ](http://wiki.debian.org/DebianInstaller/FAQ) (<http://wiki.debian.org/DebianInstaller/FAQ>).

4.1.4.1 Debug shell during boot using `initrd`

The `initramfs-tools` includes a debug shell³ in the `initrd`s it generates. If for example the `initrd` is unable to mount your root file system, you will be dropped into this debug shell which has basic commands available to help trace the problem and possibly fix it.

Basic things to check are: presence of correct device files in `/dev`; what modules are loaded (`cat /proc/modules`); output of `dmesg` for errors loading drivers. The output of `dmesg` will also show what device files have been assigned to which disks; you should check that against the output of `echo $ROOT` to make sure that the root file system is on the expected device.

If you do manage to fix the problem, typing `exit` will quit the debug shell and continue the boot process at the point it failed. Of course you will also need to fix the underlying problem and regenerate the `initrd` so the next boot won't fail again.

4.1.5 Prepare a safe environment for the upgrade

The distribution upgrade should be done either locally from a textmode virtual console (or a directly connected serial terminal), or remotely via an `ssh` link.

¹ If the `debconf` priority is set to a very high level you might prevent configuration prompts, but services that rely on default answers that are not applicable to your system will fail to start.

² For example: DNS or DHCP services, specially when there is no redundancy or failover. In the DHCP case end-users might be disconnected from the network if the lease time is lower than the time it takes for the upgrade process to complete.

³ This feature can be disabled by adding the parameter `panic=0` to your boot parameters.

Important

If you are using some VPN services (such as `tinc`) they might not be available throughout the upgrade process. Please see Section [4.1.3](#).

In order to gain extra safety margin when upgrading remotely, we suggest that you run upgrade processes in the virtual console provided by the `screen` program, which enables safe reconnection and ensures the upgrade process is not interrupted even if the remote connection process fails.

Important

You should *not* upgrade using `telnet`, `rlogin`, `rsh`, or from an X session managed by `xdm`, `gdm` or `kdm` etc on the machine you are upgrading. That is because each of those services may well be terminated during the upgrade, which can result in an *inaccessible* system that is only half-upgraded. Use of the GNOME application **update-manager** is *strongly discouraged* for upgrades to new releases, as this tool relies on the desktop session remaining active.

4.1.6 Remove conflicting packages

Due to bug [#512951](http://bugs.debian.org/512951) (<http://bugs.debian.org/512951>), the `splashy` package needs to be purged prior to the upgrade.

```
# apt-get purge splashy
```

4.2 Checking system status

The upgrade process described in this chapter has been designed for upgrades from “pure” lenny systems without third-party packages. For the greatest reliability of the upgrade process, you may wish to remove third-party packages from your system before you begin upgrading.

Direct upgrades from Debian releases older than 5.0 (lenny) are not supported. Please follow the instructions in the [Release Notes for Debian GNU/Linux 5.0](http://www.debian.org/releases/lenny/releasenotes) (<http://www.debian.org/releases/lenny/releasenotes>) to upgrade to 5.0 first.

This procedure also assumes your system has been updated to the latest point release of lenny. If you have not done this or are unsure, follow the instructions in Afsnit [A.1](#).

4.2.1 Review actions pending in package manager

In some cases, the use of `apt-get` for installing packages instead of `aptitude` might make `aptitude` consider a package as “unused” and schedule it for removal. In general, you should make sure the system is fully up-to-date and “clean” before proceeding with the upgrade.

Because of this you should review if there are any pending actions in the package manager `aptitude`. If a package is scheduled for removal or update in the package manager, it might negatively impact the upgrade procedure. Note that correcting this is only possible if your `sources.list` still points to *lenny* and not to *stable* or *squeeze*; see Afsnit [A.2](#).

To perform this review, launch `aptitude` in “visual mode” and press `g` (“Go”). If it shows any actions, you should review them and either fix them or implement the suggested actions. If no actions are suggested you will be presented with a message saying “No packages are scheduled to be installed, removed, or upgraded”.

4.2.2 Disabling APT pinning

If you have configured APT to install certain packages from a distribution other than stable (e.g. from testing), you may have to change your APT pinning configuration (stored in `/etc/apt/preferences`) to allow the upgrade of packages to the versions in the new stable release. Further information on APT pinning can be found in `apt_preferences(5)`.

4.2.3 Checking packages status

Regardless of the method used for upgrading, it is recommended that you check the status of all packages first, and verify that all packages are in an upgradable state. The following command will show any packages which have a status of Half-Installed or Failed-Config, and those with any error status.

```
# dpkg --audit
```

You could also inspect the state of all packages on your system using `dselect`, `aptitude`, or with commands such as

```
# dpkg -l | pager
```

or

```
# dpkg --get-selections "*" > ~/curr-pkgs.txt
```

It is desirable to remove any holds before upgrading. If any package that is essential for the upgrade is on hold, the upgrade will fail.

Note that `aptitude` uses a different method for registering packages that are on hold than `apt-get` and `dselect`. You can identify packages on hold for `aptitude` with

```
# aptitude search "~ahold"
```

If you want to check which packages you had on hold for `apt-get`, you should use

```
# dpkg --get-selections | grep hold
```

If you changed and recompiled a package locally, and didn't rename it or put an epoch in the version, you must put it on hold to prevent it from being upgraded.

The “hold” package state for `apt-get` can be changed using:

```
# echo package_name hold | dpkg --set-selections
```

Replace `hold` with `install` to unset the “hold” state.

If there is anything you need to fix, it is best to make sure your `sources.list` still refers to lenny as explained in Afsnit [A.2](#).

4.2.4 The proposed-updates section

If you have listed the `proposed-updates` section in your `/etc/apt/sources.list` file, you should remove it from that file before attempting to upgrade your system. This is a precaution to reduce the likelihood of conflicts.

4.2.5 Unofficial sources and backports

If you have any non-Debian packages on your system, you should be aware that these may be removed during the upgrade because of conflicting dependencies. If these packages were installed by adding an extra package archive in your `/etc/apt/sources.list`, you should check if that archive also offers packages compiled for squeeze and change the source line accordingly at the same time as your source lines for Debian packages.

Some users may have unofficial backported “newer” versions of packages that *are* in Debian installed on their lenny system. Such packages are most likely to cause problems during an upgrade as they may result in file conflicts⁴. Section [4.5](#) has some information on how to deal with file conflicts if they should occur.

⁴ Debian's package management system normally does not allow a package to remove or replace a file owned by another package unless it has been defined to replace that package.

4.3 Preparing sources for APT

Before starting the upgrade you must set up apt's configuration file for package lists, `/etc/apt/sources.list`.

apt will consider all packages that can be found via any “deb” line, and install the package with the highest version number, giving priority to the first line in the file (thus where you have multiple mirror locations, you'd typically first name a local hard disk, then CD-ROMs, and then HTTP/FTP mirrors).

A release can often be referred to both by its codename (e.g. `lenny`, `squeeze`) and by its status name (i.e. `oldstable`, `stable`, `testing`, `unstable`). Referring to a release by its codename has the advantage that you will never be surprised by a new release and for this reason is the approach taken here. It does of course mean that you will have to watch out for release announcements yourself. If you use the status name instead, you will just see loads of updates for packages available as soon as a release has happened.

4.3.1 Adding APT Internet sources

The default configuration is set up for installation from main Debian Internet servers, but you may wish to modify `/etc/apt/sources.list` to use other mirrors, preferably a mirror that is network-wise closest to you.

Debian HTTP or FTP mirror addresses can be found at <http://www.debian.org/distrib/ftplist> (look at the “list of Debian mirrors” section). HTTP mirrors are generally speedier than FTP mirrors.

For example, suppose your closest Debian mirror is `http://mirrors.kernel.org`. When inspecting that mirror with a web browser or FTP program, you will notice that the main directories are organized like this:

```
http://mirrors.kernel.org/debian/dists/squeeze/main/binary-s390/...
http://mirrors.kernel.org/debian/dists/squeeze/contrib/binary-s390/...
```

To use this mirror with apt, you add this line to your `sources.list` file:

```
deb http://mirrors.kernel.org/debian squeeze main contrib
```

Note that the `dists`' is added implicitly, and the arguments after the release name are used to expand the path into multiple directories.

After adding your new sources, disable the previously existing “deb” lines in `sources.list` by placing a hash sign (#) in front of them.

4.3.2 Adding APT sources for a local mirror

Instead of using HTTP or FTP package mirrors, you may wish to modify `/etc/apt/sources.list` to use a mirror on a local disk (possibly mounted over NFS).

For example, your package mirror may be under `/var/ftp/debian/`, and have main directories like this:

```
/var/ftp/debian/dists/squeeze/main/binary-s390/...
/var/ftp/debian/dists/squeeze/contrib/binary-s390/...
```

To use this with apt, add this line to your `sources.list` file:

```
deb file:/var/ftp/debian squeeze main contrib
```

Note that the `dists`' is added implicitly, and the arguments after the release name are used to expand the path into multiple directories.

After adding your new sources, disable the previously existing “deb” lines in `sources.list` by placing a hash sign (#) in front of them.

4.3.3 Adding APT source from CD-ROM or DVD

If you want to use CDs *only*, comment out the existing “deb” lines in `/etc/apt/sources.list` by placing a hash sign (#) in front of them.

Make sure there is a line in `/etc/fstab` that enables mounting your CD-ROM drive at the `/cdrom` mount point (the exact `/cdrom` mount point is required for **apt-cdrom**). For example, if `/dev/hdc` is your CD-ROM drive, `/etc/fstab` should contain a line like:

```
/dev/hdc /cdrom auto defaults,noauto,ro 0 0
```

Note that there must be *no spaces* between the words `defaults`, `noauto`, `ro` in the fourth field. To verify it works, insert a CD and try running

```
# mount /cdrom      # this will mount the CD to the mount point
# ls -alF /cdrom    # this should show the CD's root directory
# umount /cdrom     # this will unmount the CD
```

Next, run:

```
# apt-cdrom add
```

for each Debian Binary CD-ROM you have, to add the data about each CD to APT's database.

4.4 Upgrading packages

The recommended way to upgrade from previous Debian GNU/Linux releases is to use the package management tool **apt-get**. In previous releases, **aptitude** was recommended for this purpose, but recent versions of **apt-get** provide equivalent functionality and also have shown to more consistently give the desired upgrade results.

Don't forget to mount all needed partitions (notably the root and `/usr` partitions) read-write, with a command like:

```
# mount -o remount,rw /mountpoint
```

Next you should double-check that the APT source entries (in `/etc/apt/sources.list`) refer either to “squeeze” or to “stable”. There should not be any sources entries pointing to lenny.

Note



Source lines for a CD-ROM might sometimes refer to “unstable”; although this may be confusing, you should *not* change it.

4.4.1 Recording the session

It is strongly recommended that you use the `/usr/bin/script` program to record a transcript of the upgrade session. Then if a problem occurs, you will have a log of what happened, and if needed, can provide exact information in a bug report. To start the recording, type:

```
# script -t 2>~/upgrade-squeezestep.time -a ~/upgrade-squeezestep.script
```

or similar. If you have to rerun the typescript (e.g. if you have to reboot the system) use different *step* values to indicate which step of the upgrade you are logging. Do not put the typescript file in a temporary directory such as `/tmp` or `/var/tmp` (files in those directories may be deleted during the upgrade or during any restart).

The typescript will also allow you to review information that has scrolled off-screen. If you are at the system's console, just switch to VT2 (using `Alt+F2`) and, after logging in, use `less -R ~/root/upgrade-squeeze.script` to view the file.

After you have completed the upgrade, you can stop **script** by typing `exit` at the prompt.

If you have used the `-t` switch for **script** you can use the **scriptreplay** program to replay the whole session:

```
# scriptreplay ~/upgrade-squeeze.time ~/upgrade-squeeze.script
```

4.4.2 Updating the package list

First the list of available packages for the new release needs to be fetched. This is done by executing:

```
# apt-get update
```

4.4.3 Make sure you have sufficient space for the upgrade

You have to make sure before upgrading your system that you have sufficient hard disk space when you start the full system upgrade described in Section 4.4.6. First, any package needed for installation that is fetched from the network is stored in `/var/cache/apt/archives` (and the `partial/` subdirectory, during download), so you must make sure you have enough space on the file system partition that holds `/var/` to temporarily download the packages that will be installed in your system. After the download, you will probably need more space in other file system partitions in order to both install upgraded packages (which might contain bigger binaries or more data) and new packages that will be pulled in for the upgrade. If your system does not have sufficient space you might end up with an incomplete upgrade that might be difficult to recover from.

apt-get can show you detailed information of the disk space needed for the installation. Before executing the upgrade, you can see this estimate by running:

```
# apt-get -o APT::Get::Trivial-Only=true dist-upgrade
[ ... ]
XXX upgraded, XXX newly installed, XXX to remove and XXX not upgraded.
Need to get xx.xMB of archives.
After this operation, AAAMB of additional disk space will be used.
```

Note



Running this command at the beginning of the upgrade process may give an error, for the reasons described in the next sections. In that case you will need to wait until you've done the minimal system upgrade as in Section 4.4.4 and upgraded your kernel before running this command to estimate the disk space.

If you do not have enough space for the upgrade, **apt-get** will warn you with a message like this:

```
E: You don't have enough free space in /var/cache/apt/archives/.
```

In this situation, make sure you free up space beforehand. You can:

- Remove packages that have been previously downloaded for installation (at `/var/cache/apt/archives`). Cleaning up the package cache by running **apt-get clean** will remove all previously downloaded package files.
- Remove forgotten packages. If you have `popcon-largest-unused` installed, you can use **popcon-largest-unused** to list the packages you do not use that occupy the most space. You can also use **deborphan** or **debfostr** to find obsolete packages (see Section 4.9). Alternatively you can start **aptitude** in “visual mode” and find obsolete packages under “Obsolete and Locally Created Packages”.
- Remove packages that take up too much space and are not currently needed (you can always reinstall them after the upgrade). You can list the packages that take up the most disk space with **dpigs** (available in the `debian-goodies` package) or with **wajig** (running `wajig size`).

You can list packages that take up most of the disk space with **aptitude**. Start **aptitude** in “visual mode”, select Views → New Flat Package List, press **I** and enter `~i`, press **S** and enter `~installs size`, then it will give you nice list to work with.

- Remove translations and localization files from the system if they are not needed. You can install the `localepurge` package and configure it so that only a few selected locales are kept in the system. This will reduce the disk space consumed at `/usr/share/locale`.

- Temporarily move to another system, or permanently remove, system logs residing under `/var/log/`.
- Use a temporary `/var/cache/apt/archives`: You can use a temporary cache directory from another filesystem (USB storage device, temporary hard disk, filesystem already in use, ...)

Note

Do not use an NFS mount as the network connection could be interrupted during the upgrade.

For example, if you have a USB drive mounted on `/media/usbkey`:

1. remove the packages that have been previously downloaded for installation:

```
# apt-get clean
```

2. copy the directory `/var/cache/apt/archives` to the USB drive:

```
# cp -ax /var/cache/apt/archives /media/usbkey/
```

3. mount the temporary cache directory on the current one:

```
# mount --bind /media/usbkey/archives /var/cache/apt/archives
```

4. after the upgrade, restore the original `/var/cache/apt/archives` directory:

```
# umount /media/usbkey/archives
```

5. remove the remaining `/media/usbkey/archives`.

You can create the temporary cache directory on whatever filesystem is mounted on your system.

- Do a minimal upgrade of the system (see Section 4.4.4) or partial upgrades of the system followed by a full upgrade. This will make it possible to upgrade the system partially, and allow you to clean the package cache before the full upgrade.

Note that in order to safely remove packages, it is advisable to switch your `sources.list` back to lenny as described in Afsnit A.2.

4.4.4 Minimal system upgrade

In some cases, doing the full upgrade (as described below) directly might remove large numbers of packages that you will want to keep. We therefore recommend a two-part upgrade process, first a minimal upgrade to overcome these conflicts, then a full upgrade as described in Section 4.4.6.

To do this first, run:

```
# apt-get upgrade
```

This has the effect of upgrading those packages which can be upgraded without requiring any other packages to be removed or installed.

The minimal system upgrade can also be useful when the system is tight on space and a full upgrade cannot be run due to space constraints.

4.4.5 Upgrading the kernel and udev

The `udev` version in `squeeze` requires a kernel of version 2.6.26 or newer with the `CONFIG_SYSFS_DEPRECATED` option disabled and the `CONFIG_INOTIFY_USER` and `CONFIG_SIGNALFD` options enabled. Because the standard Debian kernels in `lenny` (version 2.6.26) have `CONFIG_SYSFS_DEPRECATED` enabled, and the `udev` version in `lenny` will not provide all the functionality expected by the latest kernels, special care must be taken when upgrading to avoid putting your system in an unbootable state.

Booting the 2.6.26 kernel from `lenny` with the `udev` from `squeeze` may result in a failure to correctly assign names to network devices, and will also fail to apply certain additional permissions to block devices (such as access by the `disk` group). The software itself will appear to be working, but some rules (for example, network-based rules) will not be loaded properly. It is therefore strongly recommended that you upgrade the kernel on its own at this point, to ensure a compatible kernel is available before upgrading `udev`.

To proceed with this kernel upgrade, run:

```
# apt-get install linux-image-2.6-flavor
```

See Section 4.6.1 for help in determining which flavor of kernel package you should install.

The move of some firmware to separate packages in the non-free archive (see Afsnit 2.2.2) means that it may be necessary to install additional firmware packages after upgrading to the new kernel to support some hardware. Some hardware that was operating correctly before the upgrade might fail to work once the kernel is upgraded. Look out for warning messages from the kernel install or `initramfs` generation scripts, and make sure the necessary firmware packages are installed.

Immediately after upgrading the kernel, you should also install the new `udev` to minimize the risk of other incompatibilities caused by using the old `udev` with a new kernel⁵. You can do this by running:

```
# apt-get install udev
```

You should reboot the system⁶ once you have upgraded both the kernel and `udev`.

4.4.6 Upgrading the system

Once you have taken the previous steps, you are now ready to continue with the main part of the upgrade. Execute:

```
# apt-get dist-upgrade
```

Note



The upgrade process for other releases recommended the use of **aptitude** for the upgrade. This tool is not recommended for upgrades from `lenny` to `squeeze`.

This will perform a complete upgrade of the system, i.e. install the newest available versions of all packages, and resolve all possible dependency changes between packages in different releases. If necessary, it will install some new packages (usually new library versions, or renamed packages), and remove any conflicting obsoleted packages.

When upgrading from a set of CD-ROMs (or DVDs), you will be asked to insert specific CDs at several points during the upgrade. You might have to insert the same CD multiple times; this is due to inter-related packages that have been spread out over the CDs.

New versions of currently installed packages that cannot be upgraded without changing the install status of another package will be left at their current version (displayed as “held back”). This can be resolved by either using **aptitude** to choose these packages for installation or by trying `apt-get -f install package`.

⁵ There are also known incompatibilities between the old kernel and the new `udev`. If you find issues after the reboot with the new kernel you will have to downgrade the `udev` in order to use the old one.

⁶ If you are logging the upgrade as described in Section 4.4, please, use **script** again to log the next steps of the upgrade after the reboot in order to log the result of the actions described in Section 4.4.6.

4.5 Possible issues during upgrade

The following sections describe known issues that might appear during an upgrade to squeeze.

4.5.1 cryptoloop support not included in the squeeze Linux kernel

Support for cryptoloop has been dropped from the Linux kernel packages included in Debian 6.0. Existing installations using cryptoloop need to be transitioned to dm-crypt before the upgrade.

4.5.2 Expected removals

The upgrade process to squeeze might ask for removal of packages in the system. The precise list of packages will vary depending on the set of packages that you have installed. These release notes give general advice on these removals, but if in doubt, it is recommended that you examine the package removals proposed by each method before proceeding.

Some common packages that are expected to be removed include: `autofs` (replaced by `autofs5`), `dhcp3` (replaced by `isc-dhcp`), `madwifi-source` and `python2.4` (replaced by `python2.6`). For more information about packages obsoleted in squeeze, see Section 4.9.

4.5.3 Errors running aptitude or apt-get

If an operation using `aptitude`, `apt-get`, or `dpkg` fails with the error

```
E: Dynamic MMap ran out of room
```

the default cache space is insufficient. You can solve this by either removing or commenting lines you don't need in `/etc/apt/sources.list` or increasing the cache size. The cache size can be increased by setting `APT::Cache-Limit` in `/etc/apt/apt.conf`. The following command will set it to a value that should be sufficient for the upgrade:

```
# echo 'APT::Cache-Limit "12500000";' >> /etc/apt/apt.conf
```

This assumes that you do not yet have this variable set in that file.

4.5.4 Conflicts or Pre-Depends loops

Sometimes it's necessary to enable the `APT::Force-LoopBreak` option in APT to be able to temporarily remove an essential package due to a Conflicts/Pre-Depends loop. `apt-get` will alert you of this and abort the upgrade. You can work around this by specifying the option `-o APT::Force-LoopBreak=1` on the `apt-get` command line.

It is possible that a system's dependency structure can be so corrupt as to require manual intervention. Usually this means using `apt-get` or

```
# dpkg --remove package_name
```

to eliminate some of the offending packages, or

```
# apt-get -f install
# dpkg --configure --pending
```

In extreme cases you might have to force re-installation with a command like

```
# dpkg --install /path/to/package_name.deb
```

4.5.5 File conflicts

File conflicts should not occur if you upgrade from a "pure" lenny system, but can occur if you have unofficial backports installed. A file conflict will result in an error like:


```
Unpacking <package-foo> (from <package-foo-file>) ...
dpkg: error processing <package-foo> (--install):
 trying to overwrite `<some-file-name>',
 which is also in package <package-bar>
dpkg-deb: subprocess paste killed by signal (Broken pipe)
Errors were encountered while processing:
 <package-foo>
```

You can try to solve a file conflict by forcibly removing the package mentioned on the *last* line of the error message:

```
# dpkg -r --force-depends package_name
```

After fixing things up, you should be able to resume the upgrade by repeating the previously described **apt-get** commands.

4.5.6 Configuration changes

During the upgrade, you will be asked questions regarding the configuration or re-configuration of several packages. When you are asked if any file in the `/etc/init.d` directory, or the `/etc/manpath.config` file should be replaced by the package maintainer's version, it's usually necessary to answer 'yes' to ensure system consistency. You can always revert to the old versions, since they will be saved with a `.dpkg-old` extension.

If you're not sure what to do, write down the name of the package or file and sort things out at a later time. You can search in the typescript file to review the information that was on the screen during the upgrade.

4.5.7 Change of session to console

If you are running the upgrade using the system's local console you might find that at some points during the upgrade the console is shifted over to a different view and you lose visibility of the upgrade process. For example, this will happen in desktop systems when **gdm** is restarted.

To recover the console where the upgrade was running you will have to use `Ctrl+Alt+F1` to switch back to the virtual terminal 1 if in the graphical startup screen or use `Alt+F1` if in the local text-mode console. Replace `F1` with the function key with the same number of the virtual terminal the upgrade was running in. You can also use `Alt+Left Arrow` or `Alt+Right Arrow` to switch between the different text-mode terminals.

4.5.8 Special care for specific packages

In most cases, packages should upgrade smoothly between lenny and squeeze. There are a small number of cases where some intervention may be required, either before or during the upgrade; these are detailed below on a per-package basis.

4.5.8.1 Evolution

Evolution (the GNOME Desktop mail client) has been updated from version 2.22 to 2.30. This changes the storage format used by the package for local data and there is a possibility of data loss if the upgrade is performed whilst `evolution` is running. Exiting the application itself may not be sufficient, as various related components will continue to run in the background. To avoid any potential issues, it is recommended that you completely exit your desktop environment before beginning the upgrade to squeeze.

As part of the upgrade process, `evolution` will check whether any related processes are running and will recommend that they be closed. A secondary check for processes will then be performed; if necessary, a choice will be offered between allowing the remaining processes to be killed or aborting the upgrade in order to resolve the situation by hand.

4.6 Upgrading your kernel and related packages

This section explains how to upgrade your kernel and identifies potential issues related to this upgrade. You can either install one of the `linux-image-*` packages provided by Debian, or compile a customized kernel from source.

Note that a lot of information in this section is based on the assumption that you will be using one of the modular Debian kernels, together with `initramfs-tools` and `udev`. If you choose to use a custom kernel that does not require an `initrd` or if you use a different `initrd` generator, some of the information may not be relevant for you.

4.6.1 Installing the kernel metapackage

When you `dist-upgrade` from `lenny` to `squeeze`, it is strongly recommended that you install a new `linux-image-2.6-*` metapackage. This package may be installed automatically by the `dist-upgrade` process. You can verify this by running:

```
# dpkg -l "linux-image*" | grep ^ii
```

If you do not see any output, then you will need to install a new `linux-image` package by hand. To see a list of available `linux-image-2.6` metapackages, run:

```
# apt-cache search linux-image-2.6- | grep -v transition
```

If you are unsure about which package to select, run `uname -r` and look for a package with a similar name. For example, if you see `'2.6.26-2-686'`, it is recommended that you install `linux-image-2.6-686`. You may also use `apt-cache` to see a long description of each package in order to help choose the best one available. For example:

```
# apt-cache show linux-image-2.6-686
```

You should then use `apt-get install` to install it. Once this new kernel is installed you should reboot at the next available opportunity to get the benefits provided by the new kernel version.

For the more adventurous there is an easy way to compile your own custom kernel on Debian GNU/Linux. Install the `kernel-package` tool and read the documentation in `/usr/share/doc/kernel-package`. Alternatively, you can also use the kernel sources, provided in the `linux-source-2.6` package. You can make use of the `deb-pkg` target available in the sources' makefile for building a binary package. There are some differences in these two approaches, please consult the respective package's documentation.

If possible, it is to your advantage to upgrade the kernel package separately from the main `dist-upgrade` to reduce the chances of a temporarily non-bootable system. Note that this should only be done after the minimal upgrade process described in Section 4.4.4.

4.6.2 Device enumeration reordering

In `lenny` and later, a new kernel mechanism for hardware discovery may change the order in which devices are discovered on your system on each boot, affecting the device names assigned to them. For example, if you have two network adapters that are associated with two different drivers, the devices `eth0` and `eth1` refer to may be swapped.

For network devices, this reordering is normally avoided by the definitions at `/etc/udev/rules.d/70-persistent-net.rules` for `udev`. Since these rules were already in place in `lenny`, no additional action should be required when upgrading to `squeeze` to get the benefit of stable network device names. Please note, however, that this `udev` mechanism means that a given network device name is tied to a particular piece of hardware; if you, for instance, exchange ethernet adapters in a deployed `squeeze` system, the new adapter will get a new interface name instead of using the existing one. To reuse an existing device name for new hardware, you will need to delete the associated entry from `/etc/udev/rules.d/70-persistent-net.rules`.

For storage devices, you may be able to avoid this reordering by using `initramfs-tools` and configuring it to load storage device driver modules in the same order they are currently loaded. However, in light of other changes to the storage subsystem of the Linux kernel as described at Afsnit 5.1.1, this is usually not worth the effort and it is recommended instead to use device names that are guaranteed to

be stable over time, such as the UUID aliases ⁷ in the `/dev/disk/by-uuid/` directory or LVM device names in `/dev/mapper/`.

4.6.3 Boot timing issues (waiting for root device)

If an `initrd` created with `initramfs-tools` is used to boot the system, in some cases the creation of device files by `udev` can happen too late for the boot scripts to act on.

The usual symptoms are that the boot will fail because the root file system cannot be mounted and you are dropped into a debug shell:

```
Gave up waiting for root device. Common problems:
- Boot args (cat /proc/cmdline)
  - Check rootdelay= (did the system wait long enough?)
  - Check root= (did the system wait for the right device?)
- Missing modules (cat /proc/modules; ls /dev)
ALERT! /dev/something does not exist. Dropping to a shell!
(initramfs)
```

But if you check afterwards, all devices that are needed are present in `/dev`. This has been observed in cases where the root file system is on a USB disk or on RAID, especially if LILO is used.

A workaround for this issue is to use the boot parameter `rootdelay=9`. The value for the timeout (in seconds) may need to be adjusted.

4.7 Preparing for the next release

After the upgrade there are several things you can do to prepare for the next release.

- Remove obsolete and unused packages as described in Section 4.9. You should review which configuration files they use and consider purging the packages to remove their configuration files.

4.8 Deprecated components

With the next release of Debian GNU/Linux 7.0 (codenamed wheezy) some features will be deprecated. Users will need to migrate to other alternatives to prevent trouble when updating to 7.0.

This includes the following features:

- OpenVZ and Linux-Vserver: Debian GNU/Linux 6.0 will be the last release to include Linux kernel virtualization featuresets outside of mainline. This means that the OpenVZ and Linux-Vserver featuresets should be considered deprecated, and users should migrate to linux-2.6 upstream merged virtualization solutions like KVM, Linux Containers or Xen.
- The `gdm` package (GNOME Display Manager version 2.20) will be obsoleted by `gdm3`, a rewritten version. See Afsnit 5.6 for more information.

4.9 Obsolete packages

Introducing several thousand new packages, squeeze also retires and omits more than four thousand old packages that were in lenny. It provides no upgrade path for these obsolete packages. While nothing prevents you from continuing to use an obsolete package where desired, the Debian project will usually discontinue security support for it a year after squeeze's release⁸, and will not normally provide other support in the meantime. Replacing them with available alternatives, if any, is recommended.

There are many reasons why packages might have been removed from the distribution: they are no longer maintained upstream; there is no longer a Debian Developer interested in maintaining the packages; the functionality they provide has been superseded by different software (or a new version); or they

⁷ Some devices, such as those used by crypt, RAID or LVM have stable non-UUID identifiers. In these cases you should use the name of the devices, which are already unambiguous and stable.

⁸ Or for as long as there is not another release in that time frame. Typically only two stable releases are supported at any given time.

are no longer considered suitable for squeeze due to bugs in them. In the latter case, packages might still be present in the “unstable” distribution.

Detecting which packages in an updated system are “obsolete” is easy since the package management front-ends will mark them as such. If you are using **aptitude**, you will see a listing of these packages in the “Obsolete and Locally Created Packages” entry. **dselect** provides a similar section but the listing it presents might differ.

Also, if you have used **aptitude** or **apt-get** to manually install packages in lenny it will have kept track of those packages you manually installed and will be able to mark as obsolete those packages pulled in by dependencies alone which are no longer needed if a package has been removed. **aptitude** and **apt**, unlike **deborphan**, will not mark for removal packages that you manually installed, as opposed to those that were automatically installed through dependencies. To remove automatically installed packages that are no longer used, run:

```
# apt-get autoremove
```

There are additional tools you can use to find obsolete packages such as **deborphan**, **debfoister** or **cruff**. **deborphan** is highly recommended, although it will (in default mode) only report obsolete libraries: packages in the “libs” or “oldlibs” sections that are not used by any other packages. Do not blindly remove the packages these tools present, especially if you are using aggressive non-default options that are prone to produce false positives. It is highly recommended that you manually review the packages suggested for removal (i.e. their contents, size and description) before you remove them.

The **Debian Bug Tracking System** (<http://bugs.debian.org/>) often provides additional information on why the package was removed. You should review both the archived bug reports for the package itself and the archived bug reports for the **ftp.debian.org pseudo-package** (<http://bugs.debian.org/cgi-bin/pkgreport.cgi?pkg=ftp.debian.org&archive=yes>).

The list of obsolete packages includes:

- The plone content management suite. This has been done on request by the developers to use the Unified Installer for Linux, which they consider their only supported deployment platform. The recommended tool for installing Plone on a Debian GNU/Linux system is the Unified Installer, available for download from <http://plone.org/>
- **nessus**, the vulnerability scanning server and its associated libraries and other software. It has been deprecated in favor of the software provided by OpenVAS which includes **openvas-server** and **openvas-client**. As there is no automatic upgrade path you will have to install OpenVAS and manually move over your Nessus service configuration (users, certificates, etc.) to OpenVAS.
- **postgresql-8.3**, successor is **postgresql-8.4**.
- **mysql-server-5.0**, successor is **mysql-server-5.1**.
- **python2.4**, successor is **python2.6**.
- Java 5 software including the packages **sun-java5-jre** and **sun-java5-bin**, successor is Java 6: **sun-java6-jre** and associated packages.
- **apt-proxy** is no longer provided, alternatives to this tool include **apt-cacher-ng**, **apt-cacher** and **approx**. Although no automatic upgrade path exists, user of **apt-proxy** can switch to these alternatives by manually installing any of these packages.
- Some of Xorg's video drivers are no longer available in squeeze and are obsolete. This includes **xserver-xorg-video-cyrix**, **xserver-xorg-video-i810**, **xserver-xorg-video-imstt**, **xserver-xorg-video-nsc**, **xserver-xorg-video-sunbw2**, and **xserver-xorg-video-vga**. They might be removed through the upgrade. Users should install **xserver-xorg-video-all** instead.
- The utility used in lenny to display a splash image at boot time, **usplash**, is no longer available. It has been replaced by **plymouth**.

4.9.1 Dummy packages

Some packages from lenny have been split into several packages in squeeze, often to improve system maintainability. To ease the upgrade path in such cases, squeeze often provides “dummy” packages: empty packages that have the same name as the old package in lenny with dependencies that cause the new packages to be installed. These “dummy” packages are considered obsolete packages after the upgrade and can be safely removed.

Most (but not all) dummy packages' descriptions indicate their purpose. Package descriptions for dummy packages are not uniform, however, so you might also find **deborphan** with the `--guess-*` options (e.g. `--guess-dummy`) useful to detect them in your system. Note that some dummy packages are not intended to be removed after an upgrade but are, instead, used to keep track of the current available version of a program over time.

Kapitel 5

Ting man skal være opmærksom på i forbindelse med squeeze

5.1 Mulige problemer

Sommetider kan ændringer, som er introduceret i en ny udgave, have bivirkninger som vi ikke med rimelighed kan undgå, eller disse ændringer kan afsløre fejl andre steder. Dette afsnit dokumenterer problemer som vi er bekendt med. Læs også gerne errata, dokumentationen for de relevante pakker, fejlrapporter og anden information som er nævnt i Afsnit 6.1.

5.1.1 Migrering af disk-drivere fra IDE- til PATA-delsystemet

Den nye version af Linuxkernen tilbyder forskellige drivere til visse PATA (IDE) controllere. Navnene på visse harddisk-, cdrom- og båndstation-enheder vil kunne ændres.

Det anbefales nu at identificere disk-enheder i opsætningsfiler ved mærkat eller UUID (unique identifier) i stedet for at bruge enhedens navn. Dette vil virke for både gamle og nye versioner af kernen. Ved opgradering til version squeeze af Debians kerne-pakker, vil pakken `linux-base` tilbyde at foretage denne ændring i opsætningsfilerne, for hovedparten af de filesystem-relaterede pakker på systemet, for dig, inklusive de forskellige opstartsindlæsere som følger med Debian. Hvis du vælger ikke at opdatere systemopsætningen automatisk, eller hvis du ikke bruger Debians kerne-pakker, bliver du selv nødt til at opdatere enheds-ID'er før den næste genstart af systemet for at sikre dig at det fortsat kan startes.

5.1.2 Ændring i formatet på mdadm-metadata kræver en nyere version af Grub

Det følgende berører kun brugere som ønsker at lade opstartsindlæseren `grub-pc` indlæse kernen direkte fra en RAID-enhed som er oprettet med `mdadm 3.x` og standardværdier, eller når versionen af metadata er angivet eksplicit ved at bruge tilvalget `-e`. Dette omfatter specifikt alle arrays som er oprettet under eller efter installeringen af Debian squeeze. Arrays som er oprettet med ældre versioner af `mdadm`, og RAIDs der er oprettet med kommandolinje-tilvalget `-e 0.9` er ikke berørt.

Versioner af `grub-pc`, som er ældre end `1.98+20100720-1`, vil ikke kunne starte op direkte fra RAID med metadata-formaterne `1.x` (den nye standard er `1.2`). Brug `grub-pc 1.98+20100720-1` eller nyere, som følger med by Debian squeeze, for at sikre dig at systemet kan startes op. Et system som ikke kan startes op kan reddes med [Super Grub2 Disk](http://www.supergrubdisk.org/super-grub2-disk/) eller [grml](http://grml.org).

5.1.3 `pam_userdb.so` fungerer ikke med nyere versioner af `libdb`

Visse filer fra Berkeley Database, version 7 der er oprettet med `libdb3` kan ikke læses af nyere versioner af `libdb` (se fejlrapporten [#521860](http://bugs.debian.org/521860)). Som en løsning, kan filerne genskabes med kommandoen `db4.8_load`, fra pakken `db4.8-util`.

5.1.4 Mulige problemer med varianter af /bin/sh

Hvis du tidligere har tilføjet en lokal variant for /bin/sh, eller ændret symlinket, /bin/sh til at pege på noget andet end /bin/bash, så kan du støde ind i problemer ved opgradering af pakkerne dash eller bash. Bemærk at dette omfatter ændringer som skyldes at andre pakker (f.eks. mksh) har fået lov til at blive systemets standardskal ved at overtage symlinket til /bin/sh.

Hvis du løber ind i sådanne problemer, skal du fjerne den lokale variant og sørge for at symlinkene til såvel /bin/sh og dens manualsider peger på de filer der følger med pakken bash og herefter køre kommandoen **dpkg-reconfigure -- force dash**.

```
dpkg-divert --remove /bin/sh
dpkg-divert --remove /usr/share/man/man1/sh.1.gz

ln -sf bash /bin/sh
ln -sf bash.1.gz /usr/share/man/man1/sh.1.gz
```

5.1.5 Ændring i politikken for kernen vedrørende ressource-konflikter

Standardindstillingen for parameteren, `acpi_enforce_resources`, i Linuxkernen er ændret til "strict". Dette kan medføre at visse ældre sensor-drivere nægtes adgang til sensorens hardware. Én løsning er at føje "acpi_enforce_resources=lax" til kerne-kommandolinjen.

5.2 LDAP-understøttelse

En egenskab i kryptografi-bibliotekerne, som bruges i LDAP-programbiblioteker, bevirker at programmer som bruger LDAP vil fejle når de forsøger at ændre deres effektive privilegier, når der forbindes til en LDAP-server, der bruger TLS eller SSL. Dette kan medføre problemer for suid-programmer på systemer som bruger `libnss-ldap` som **sudo**, **su** eller **schroot** og for suid-programmer der udfører LDAP-søgninger som `sudo-ldap`.

Det anbefales at erstatte pakken `libnss-ldap` med pakken `libnss-ldapd`, som er et nyere programbibliotek der bruger en separat dæmon, (`nslcd`) til alle LDAP-opslag. Erstatningen for pakken `libpam-ldap` er `libpam-ldapd`.

Bemærk at pakken `libnss-ldapd` anbefaler NSS-cachedæmonen, (`nscd`) som du bør kontrollere for, om den passer til dit miljø, før du installerer den. Som et alternativ til pakken `nscd`, kan du overveje pakken `unscd`.

Yderligere information kan findes i fejlrapporterne [#566351](http://bugs.debian.org/566351) (<http://bugs.debian.org/566351>) og [#545414](http://bugs.debian.org/545414) (<http://bugs.debian.org/545414>).

5.3 Tjenesten sieve flytter til den IANA-tildelte port

IANA-porten som er tildelt ManageSieve er 4190/tcp, og den gamle port som bruges af **timsieved** og anden managesieve-software i mange distributioner (2000/tcp), er reserveret Cisco SCCP, ifølge [the IANA registry](http://www.iana.org/assignments/port-numbers) (<http://www.iana.org/assignments/port-numbers>).

Begyndende med version 4.38 af Debianpakken `netbase`, vil tjenesten `sieve` blive flyttet fra port 2000 til port 4190 i filen `/etc/services`.

Alle installationer som brugte tjenestnavnet `sieve` i stedet for et numerisk portnummer vil skifte til det nye portnummer i samme øjeblik som tjenesterne genstartes eller genindlæses, og i visse tilfælde, umiddelbart efter `/etc/services` er opdateret.

Dette vil påvirke Cyrus IMAP. Det kan også påvirke anden software som betjener sig af `sieve`, som f.eks. DoveCot.

For at undgå problemer med nedetid, opfordres administratorer af mail-klynger der bruger Debian til at verificere deres Cyrus- (og sandsynligvis også DoveCot-) installationer, og tage forholdsregler imod at tjenester flyttes fra port 2000/tcp til port 4190/tcp på enten servere eller klienter.

Det er værd at notere sig at:

- Filen `/etc/services` vil kun blive automatisk opdateret hvis du aldrig har ændret den. Ellers vil du af `dpkg` blive præsenteret for en prompt som stiller dig spørgsmål om ændringerne.

- Du kan redigere `/etc/services` og ændre sieve-porteringen tilbage til 2000, hvis du ønsker (dette anbefales imidlertid ikke).
- Du kan redigere filen `/etc/cyrus.conf` og enhver anden relevant opsætningsfil for din mail-/webmail-klynge (f.eks. i sieves web-grænseflade) på forskud og tvinge dem alle til et statisk portnummer.
- Du kan sætte cyrus master op til at lytte på begge porte (2000 and 4190) samtidig, og derved undgå problemet helt. Dette muliggør også en meget glattere migrering fra port 2000 til port 4190.

5.4 Sikkerhedsstatus på web-browsere

Debian 6.0 inkluderer adskillige browser-motorer som er påvirket af en stadig strøm af sikkerhedsbrister. Den høje forekomst af sårbarheder og den delvist manglende støtte fra udviklerne i form af langtidsunderstøttede versionsgrene, gør det meget svært at understøtte disse browsere med bagudporterede sikkerhedsrettelser. Hertil kommer at gensidige afhængigheder mellem programbiblioteker gør det umuligt at opdatere til en nyere opstrøms-udgave. Derfor er browsere der bygger på motorene qtwebkit og khtml inkluderet i Squeeze, men de er ikke fuldt dækket af sikkerhedsunderstøttelse. Vi vil gøre en indsats for at opspore og bagudportere sikkerhedsrettelser, men i almindelighed bør disse browsere ikke bruges til at tilgå upålidelige websteder.

Til almindelig brug af web-browser, anbefaler vi browsere der bygger på Mozillas xulrunner-motor (Iceweasel og Iceape) i stedet for browsere der er baseret på Webkit-motoren (f.eks. Epiphany) eller Chromium. Xulrunner har haft en god tradition for at være bagud-portérbar til ældre Debian-udgaver igennem de tidligere udgivelsescykler.

Selvom Chromium er bygget på Webkits kodebase, er det en løsrevet pakke, dvs. at hvis bagudportering ikke længere vil vise sig mulig, vil der stadig være mulighed for at opgradere til en senere opstrøms-udgave (hvilket ikke er muligt for selve webkit-programbiblioteket).

WebKit er understøttet opstrøms i en langtids-vedligeholdelsescyklus.

5.5 KDE-skrivebordet

Squeeze er den første Debian-udgave som har fuld understøttelse af den næste generation af KDE som er baseret på Qt 4. De fleste officielle KDE-applikationer er version 4.4.5 med undtagelse af pakken `kde pim` som er version 4.4.7. Du kan læse [announcements from the KDE Project](http://www.kde.org/announcements/) (<http://www.kde.org/announcements/>) for at finde ud af mere om ændringerne.

5.5.1 Opgradering fra KDE 3

KDE 3 skrivebordsmiljøet understøttes ikke længere i Debian 6.0. Ved opgradering, vil det automatisk blive erstattet af den nye 4.4-udgave. Eftersom dette er en større ændring, bør brugere tage visse forholdsregler for at sørge for så problemfri en opgraderingsproces som muligt.

vigtigt



Det frarådes at opgradere mens der er en aktiv KDE 3-session på systemet. Ellers kan opgraderingsprocessen gøre den aktive session dysfunktionel med risiko for datatab.

Efter det første logind på det opgraderede system, vil eksisterende brugere blive mødt med den Debian-KDE-guede migrerings-procedure som kaldes `kaboom` og som vil assistere brugeren i processen med at migrere dennes personlige data, og efter hans valg, at sikkerhedskopiere den gamle KDE-opsætning. Læs [Kabooms hjemmeside](http://pkg-kde.alioth.debian.org/kaboom.html) (<http://pkg-kde.alioth.debian.org/kaboom.html>) for mere information.

Selvom KDE 3-baserede skrivebordsmiljøer ikke længere er understøttet, kan brugere stadig installere og bruge visse individuelle KDE 3-applikationer, eftersom de centrale programbiblioteker og binærprogrammer af KDE 3 (`kdelibs`) og Qt 3 stadig er tilgængelige i Debian 6.0. Bemærk imidlertid at disse

applikationer måske ikke er velintegrerede i det nye miljø. Ydermere vil hverken KDE 3 eller Qt 3 blive understøttet i den næste Debian-udgave, så hvis du bruger dem, rådes du stærkt til at portere din software til den nye platform.

5.5.2 Nye KDE-metapakker

Som tidligere bemærket, så indføres der en samling nye, KDE-relaterede metapakker i Debian 6.0:

- Du rådes stærkt til at installere pakken `kde-standard` til almindelig skrivebordsbrug. `kde-standard` vil installere **KDE Plasma Desktop** (<http://www.kde.org/workspaces/plasmadesktop/>) som standard, og et udvalg af almindeligt brugte applikationer.
- Hvis du ønsker et minimalt skrivebord, kan du installere pakken `kde-plasma-desktop` og herefter vælge de applikationer du har brug for manuelt. Dette er omtrent det samme som at installere pakken `kde-minimal package`, der fulgte med Debian 5.0.
- Til small form factor-enheder, er der et alternativt skrivebordsmiljø som kaldes **KDE Plasma Netbook** (<http://www.kde.org/workspaces/plasmanetbook/>) som kan installeres med pakken `kde-plasma-netbook`. Plasma Netbook and Plasma Desktop kan eksistere på det samme system og hvilket af de to systemer der skal bruges som standard kan indstilles i System Settings (erstatning for den tidligere KControl).
- Hvis du ønsker et fuldt udvalg af officielle KDE-applikationer, har du mulighed for at installere pakken `kde-full`. Den vil installere KDE Plasma Desktop som standard.

5.6 Ændringer i og understøttelse af GNOME-skrivebordet

Der har været mange ændringer i skrivebordsmiljøet GNOME, i forhold til den version der fulgte med lenny til versionen i squeeze, du kan finde mere information i **GNOME 2.30 Release Notes** (<http://library.gnome.org/misc/release-notes/2.30/>). Specifikke problemer er oplistet nedenfor.

5.6.1 GDM 2.20 og 2.30

GNOME Display Manager (GDM), beholdes i version 2.20 for systemer der er opgraderet fra lenny. Denne version vil stadig blive vedligeholdt i squeeze-cyklussen, men dette er den sidste udgave som dette gøres for. Nyinstallerede systemer vil få GDM 2.30 i stedet, som følger med pakken `gdm3`. På grund af uoverensstemmelser mellem begge versioner, vil denne opgradering ikke være automatisk, men det anbefales at installere pakken `gdm3` efter opgraderingen til squeeze. Dette bør gøres fra konsollen, eller mens der kun er én aktiv GNOME-session. Bemærk at indstillinger fra GDM 2.20 vil **ikke** blive migreret. Til et standard skrivebordssystem, vil det imidlertid være tilstrækkeligt at installere pakken `gdm3`.

5.6.2 Rettigheder til enheder og øvrige administrative rettigheder

Specifikke rettigheder til enheder gives automatisk til den bruger der i øjeblikket er fysisk logget ind på systemet: video- og lyd-enheder, netværk-roaming, strømstyring, montering af enheder. Grupperne `cdrom`, `floppy`, `audio`, `video`, `plugdev` og `powerdev` betyder ikke længere noget. Læs dokumentationen til pakken `consolekit` for mere information.

De fleste grafiske programmer, som kræver root-rettigheder, er nu afhængige af **PolicyKit** (<http://www.freedesktop.org/wiki/Software/PolicyKit>) for at opnå disse, i stedet for `gksu`. Den anbefalede måde at tildele en bruger administrative rettigheder, er at føje ham til gruppen `sudo`.

5.6.3 Vekselvirkning mellem network-manager og ifupdown

Ved opgradering af pakken `network-manager`, vil interfaces som i filen `/etc/network/interfaces`, uden andre tilvalg, er sat op til at bruge DHCP blive deaktiveret i denne fil, og i stedet blive håndteret af NetworkManager. Derfor vil kommandoerne `ifup` og `ifdown` ikke længere fungere. Disse interfaces kan håndteres ved i stedet at bruge grænseflader til NetworkManager, læs **the NetworkManager documentation** (<http://live.gnome.org/NetworkManager/SystemSettings>).

Modsætningsvis, vil ethvert interface, der er sat op med flere tilvalg i filen `/etc/network/interfaces`, blive ignoreret af NetworkManager. Dette vedrører særligt trådløse interfaces der er brugt ved installeringen af Debian (se fejlrapport [#606268](http://bugs.debian.org/606268) (<http://bugs.debian.org/606268>)).

5.7 Ændringer i grafik-stakken

Der har været en række ændringer i X-stakken i Debian 6.0. Dette afsnit oplister de vigtigste og mest synlige af disse.

5.7.1 Forældede Xorg-drivere

Xorg-videodrivere til `cyrix`, `imstt`, `sunbw2` og `vga` leveres ikke længere. Brugere bør i stedet skifte til en fælles driver som `vesa` eller `fbdev`.

Den gamle `via`-driver blev ikke længere vedligeholdt og er blevet erstattet af `openchrome`-driveren, som vil blive brugt automatisk efter opgraderingen.

Driverne `nv` og `radeonhd` er stadig med i denne udgave, men det frarådes at bruge dem. Brugere bør i stedet overveje driverne `nouveau` og `radeon`.

X-inputdriverne `calcomp`, `citron`, `digitaledge`, `dmc`, `dynapro`, `elo2300`, `fpit`, `hyperpen`, `jamstudio`, `magellan`, `microtouch`, `mutouch`, `palmax`, `spaceorb`, `summa`, `tek4957` og `ur98` vedligeholdes ikke længere og følger ikke med denne udgave. Brugere af disse enheder bør overveje at skifte til en passende kernetriver og X-driveren `evdev`. For mange serielle enheder, kan man, med kommandoen `inputattach`, vedhæfte dem til en Linux input-enhed som kan genkendes af X-driveren `evdev`.

5.7.2 Indstilling for kernens tilstand

Kerne-drivere til Intel (begyndende med `i830`), ATI/AMD (fra den originale Radeon til Radeon HD 5xxx "Evergreen"-serien) og til NVIDIA grafik-chipsets understøtter nu chippens egne modus-indstillinger.

5.7.3 Input-enhed hotplug

Xorg X-serveren der følger med Debian 6.0 giver forbedret understøttelse af hotplugging af input-enheder (mus, tastaturer, digitizere, ...). De gamle `xserver-xorg-input-kbd` og `xserver-xorg-input-mouse` pakker er erstattet af `xserver-xorg-input-evdev`, som kræver en kerne med tilvalget `CONFIG_INPUT_EVDEV` aktiveret. Ydermere er visse af de tastkoder, der genereres af denne driver, forskellige fra dem der traditionelt er forbundet med de samme taster. Brugere af programmer som `xmodmap` og `xbindkeys` bliver nødt til at justere deres opsætning til de nye tastkoder.

5.7.4 Nedlukning af X-server

Traditionelt, ville tastkombinationen `Ctrl-Alt-Backspace` dræbe X-serveren. Denne kombination er ikke længere aktiveret som standard, men kan genaktiveres ved at rekonfigurere pakken `keyboard-configuration` (for hele systemet), eller ved at bruge dit skrivebordsmiljø program til tastaturopsætning.

5.8 Ændring af søgesti for Munin

I squeeze, er standardplaceringen af webindhold der er genereret af munin blevet ændret fra `/var/www/munin` til `/var/cache/munin/www` og derfor skal filen `/etc/munin/munin.conf` tilrettes i forbindelse med opgraderinger, hvis den er blevet ændret af administrator. Læs `/usr/share/doc/munin/NEWS.Debian.gz` hvis du opgraderer.

5.9 Opgraderingsanvisninger til Shorewall

I forbindelse med opgradering til Debian 6.0, bør brugere af firewall-pakken `shorewall` læse anvisningerne på <http://www.shorewall.net/LennyToSqueeze.html>, som også findes i dokumentet `/usr/share/doc/shorewall-doc/html/LennyToSqueeze.html` i pakken `shorewall-doc`.

Kapitel 6

Yderligere oplysninger om Debian GNU/Linux

6.1 Yderligere læsning

Beyond these release notes and the installation guide, further documentation on Debian GNU/Linux is available from the Debian Documentation Project (DDP), whose goal is to create high-quality documentation for Debian users and developers. Documentation, including the Debian Reference, Debian New Maintainers Guide, and Debian FAQ are available, and many more. For full details of the existing resources see the [Debian Documentation website](http://www.debian.org/doc/) (<http://www.debian.org/doc/>) and the [Debian Wiki website](http://wiki.debian.org/) (<http://wiki.debian.org/>)

Dokumentationen for enkelte pakker installeres i `/usr/share/doc/pakke`. Dette kan omfatte oplysninger om ophavsret, Debian-specifikke detaljer samt dokumentation fra programmets ophavssted.

6.2 Få hjælp

Der er mange steder at finde hjælp og rådgivning for Debianbrugere, men disse bør først bruges når man ikke kan finde svar på sit spørgsmål via de andre dokumentationskilder. Dette afsnit giver en kort indledning til disse, som kan være nyttige for nye Debianbrugere.

6.2.1 E-post-lister

De mest interessante e-post-lister til Debianbrugere er den engelske liste `debian-user` plus listerne `debian-user-sprog` for andre sprog (den danske er `debian-user-danish`). Oplysninger om disse lister og hvordan man abonnerer på dem kan findes på <http://lists.debian.org/>. Se venligst i arkiverne om dit spørgsmål allerede er besvaret, før du skriver, og følg i øvrigt standard-etiketten for e-post-lister.

6.2.2 Internet Relay Chat

Debian har en IRC-kanal med det formål at hjælpe Debianbrugere. Kanalen kan findes på IRC-netværket OFTC. Brug din foretrukne IRC-klient til at forbinde til `irc.debian.org` og gå så ind på kanalen `#debian`.

Følg kanalens retningslinjer og udvis respekt for andre brugere. Retningslinjerne kan findes på [Debian's wiki](http://wiki.debian.org/DebianIRC) (<http://wiki.debian.org/DebianIRC>).

Yderligere oplysninger om OFTC kan findes på [websiden](http://www.oftc.net/) (<http://www.oftc.net/>).

6.3 Fejlrapportering

Vi gør vores bedste for at gøre Debian GNU/Linux til et højkvalitetsstyresystem, men dette betyder ikke at pakkerne altid er fri for fejl. Jævnfør Debians filosofi om "åben udvikling", og som en tjeneste for vores brugere i almindelighed, kan alle oplysninger om de indrappede fejl findes på vores fejlspringssystem, BTS. BTS kan gennemses på <http://bugs.debian.org/>.

Hvis du finder en fejl i distributionen eller i de programpakker, som er del af den, så rapportér dem venligst så de kan blive rettet i fremtidige udgaver. Fejlrapportering kræver en gyldig e-post-adresse. Vi

beder om dette for at vi kan spore fejlrapporterne, og så udviklerne kan kontakte ophavspersonen hvis der kræves flere oplysninger.

Du kan indsende en fejlrapport ved hjælp af programmet **reportbug** eller manuelt via e-post. Du kan læse mere om fejlsporingsystemet og hvordan det bruges ved at læse referencedokumentationen (som er tilgængelig i `/usr/share/doc/debian`, hvis du har installeret `doc-debian`) eller i **fejlsporingsssystemet** (<http://bugs.debian.org/>).

6.4 Bidrag til Debian

Du behøver ikke være ekspert for at kunne bidrage til Debian. Ved at hjælpe andre brugere med at løse problemer via de forskellige **hjælpe**lister (<http://lists.debian.org/>), bidrager du til Debian. Fejlfinding og -rettelse relateret til distributionens udvikling via deltagelse på **udvikler**listerne (<http://lists.debian.org/>) er også særdeles nyttigt. For at hjælpe til med at vedligeholde Debiandistributionens kvalitet, kan du **indsende fejl**rapporter (<http://bugs.debian.org/>) og hjælpe udviklere med at finde og fikse dem. Hvis du er god med ord, kan du også bidrage aktivt ved at skrive **dokumentation** (<http://www.debian.org/doc/cvs>) eller **oversætte** (<http://www.debian.org/international/>) eksisterende dokumentation til dit eget sprog.

Hvis du kan afsætte mere tid, kan du håndtere et stykke af Debians fri softwaresamling. Det er især en hjælp hvis folk tager ansvaret for eller vedligeholder ting, hvis inklusion i Debian forespørges af andre. Databasen **Work Needing and Prospective Packages** (<http://www.debian.org/devel/wnpp/>) indeholder denne type oplysninger. Hvis du er interesseret i specifikke grupper, vil du måske finde det underholdende at bidrage til nogle af Debians underprojekter, inklusive portering til bestemte arkitekturer - se **Debian Jr.** (<http://www.debian.org/devel/debian-jr/>) og **Debian Med** (<http://www.debian.org/devel/debian-med/>).

Under alle omstændigheder: Hvis du på nogen måde arbejder inden for fri software-bevægelsen, hvadenten som bruger, programmør, dokumentationsforfatter eller oversætter, hjælper du allerede fri software. At bidrage er både lønsomt og morsomt, lader dig møde nye mennesker, og giver dig en rar fornemmelse indeni.

Kapitel 7

Ordliste

ACPI

Advanced Configuration and Power Interface

ALSA

Advanced Linux Sound Architecture

APM

Advanced Power Management

BD

blu-ray-disk

cd

Compact Disc

cd-rom

Compact Disc Read Only Memory

DHCP

Dynamic Host Configuration Protocol

DNS

Domain Name System

dvd

Digital Versatile Disc

GIMP

GNU Image Manipulation Program

GNU

GNU's Not Unix

GPG

GNU Privacy Guard

IDE

Integrated Drive Electronics

LDAP

Lightweight Directory Access Protocol

LILO

Linux LOader

LSB

Linux Standard Base

LVM

Logical Volume Manager

MTA

Mail Transport Agent

NFS

Network File System

NIC

Network Interface Card

NIS

Network Information Service

OSS

Open Sound System

RAID

Redundant Array of Independent Disks

RPC

Remote Procedure Call

SATA

Serial Advanced Technology Attachment

SSL

Secure Sockets Layer

TLS

Transport Layer Security

USB

Universal Serial Bus

UUID

Universally Unique Identifier

VGA

Video Graphics Array

WPA

Wi-Fi Protected Access

Bilag A

Håndter dit lenny-system før opgraderingen

Dette bilag indeholder information om, hvordan du kontrollerer, at du kan installere eller opgradere pakker fra lenny inden du opgraderer til squeeze. Dette bør kun være nødvendigt i specifikke situationer.

A.1 Opgradering af dit lenny-system

Det er grundlæggende ikke forskelligt fra enhver anden opgradering af lenny som du har udført. Den eneste forskel er, at du først skal sikre dig, at din pakkedate stadig indeholder referencer til lenny som forklaret i Afsnit [A.2](#).

Hvis du opgraderer dit system via et Debianspejl, vil systemet automatisk blive opgraderet til den seneste punktudgave (point release) af lenny.

A.2 Kontroller din kildeliste

Hvis nogen af linjerne i `/etc/apt/sources.list` refererer til "stable", "anvender" du allerede squeeze. Dette er måske ikke, hvad du ønsker, hvis du ikke er klar til opgraderingen endnu. Hvis du allerede har kørt `apt-get update`, kan du stadig gå baglæns ved at følge nedenstående procedure.

Hvis du allerede har installeret pakker fra squeeze, er der ikke længere meget mening i at installere pakker fra lenny. I dette tilfælde skal du bestemme dig for, om du vil fortsætte eller ej. Det er muligt at nedgradere pakker, men det beskrives ikke her.

Åbn filen `/etc/apt/sources.list` med din foretrukne tekstbehandler (som `root`) og kontroller alle linjer som begynder med `deb http:` eller `deb ftp:` efter en reference til "stable". Hvis du finder nogen, så ændr `stable` til `lenny`.

Hvis du har linjer som begynder med `deb file:`, skal du selv kontrollere om placeringen, som de refererer til indeholder et arkiv for lenny eller squeeze.

vigtigt



Ændr ikke linjer som begynder med `deb cdrom:`. Hvis du gør det, så gøres linjen ugyldig og du skal så køre **apt-cdrom** igen. Bliv ikke forurologet hvis en "cdrom"-kildelinje refererer til "unstable". Selvom det er forvirrende, så er det normalt.

Hvis du har foretaget ændringer, så gem filen og kørs

```
# apt-get update
```

for at opdatere pakkelisten.

A.3 Opgrader forældede sprogindstillinger til UTF-8

Hvis dit system er sprogoversat og anvender et sprog, som ikke er baseret på UTF-8, bør du overveje at konvertere dit system til at bruge UTF-8-baserede sprogindstillinger. Tidligere har der været identificeret fejl, som kun har vist sig, når der bruges et tegnsæt forskelligt fra UTF-8. På skrivebordet er sådanne forældede sprogindstillinger understøttet via grimme hackninger internt i bibliotekerne, og vi kan ikke yde hjælp til brugere, som stadig anvender dem.

For at vælge systemets sprogindstillinger kan du køre **dpkg-reconfigure locales**. Sikr dig at du vælger en UTF-8-baseret lokalisering, når du bliver præsenteret for spørgsmålet om hvilken lokalindstilling, som skal anvendes som standard af systemet. Udover dette bør du kontrollere dine brugeres lokalindstillinger i deres konfigurationsmiljø.

Bilag B

Bidragydere til udgivelsesnoterne

Mange har hjulpet til med udgivelsesnoterne, blandt andre

Adam Di Carlo, Andreas Barth, Andrei Popescu, Anne Bezemer, Bob Hilliard, Charles Plessy, Christian Perrier, Daniel Baumann, Eddy Petrișor, Emmanuel Kasper, Esko Arajärvi, Frans Pop, Giovanni Ragnani, Gordon Farquharson, Javier Fernández-Sanguino Peña, Jens Seidel, Jonas Meurer, Josip Rodin, Justin B Rye, LaMont Jones, Luk Claes, Martin Michlmayr, Michael Biebl, Moritz Mühlenhoff, Noah Meyerhans, Noritada Kobayashi, Osamu Aoki, Peter Green, Rob Bradford, Samuel Thibault, Simon Bienlein, Simon Paillard, Stefan Fritsch, Steve Langasek, Steve McIntyre, Tobias Scherer, Vincent McIntyre, och W. Martin Borgert.

Dette dokument er oversat til mange sprog. Mange tak til alle oversætterne!

Oversat til dansk af: Joe Hansen, Torben Grøn Helligsø, Morten Bo Johansen, Ask Hjorth Larsen, Nicky Thomassen,

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