

Live

Live <debian-live@lists.debian.org>

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Live

Live

<debian-live@lists.debian.org>

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```
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```

live-build :

```
# make install
```

:

```
# make uninstall
```

live-build Git <http://live-systems.org/debian/>

live-boot live-config

: Live live-boot live-config *live-boot-doc live-config-doc*

Debian

live-boot live-config {live-build }#installing-live-build Debian

git{ }#terms

live-boot live-config

```
$ git clone git://live-systems.org/git/live-boot.git
$ git clone git://live-systems.org/git/live-config.git
```

live-boot live-config man

live-boot live-config .deb

chroot : \${testing} \${testing}

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```
$ cd live-boot
$ dpkg-buildpackage -b -uc -us
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$ xorriso -as cdrecord -v dev=/dev/sr0 blank=as_needed live-image-i386.hybrid.iso
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xorriso ISO cp USBUSB \${USB} /dev/sdb USB /dev/sdb1 ! USB dmesg ls -l /dev/disk/by-id 195

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```
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ddns-update-style none;

option domain-name "example.org";
option domain-name-servers ns1.example.org, ns2.example.org;

default-lease-time 600;
max-lease-time 7200;

log-facility local7;

subnet 192.168.0.0 netmask 255.255.255.0 {
    range 192.168.0.1 192.168.0.254;
    filename "pxelinux.0";
    next-server 192.168.0.2;
    option subnet-mask 255.255.255.0;
    option broadcast-address 192.168.0.255;
    option routers 192.168.0.1;
}
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sudo -p "Password for $0:" /sbin/ifconfig $1 172.20.0.1
echo "Executing /etc/qemu-ifup"
echo "Bringing up $1 for bridged mode..."
sudo /sbin/ifconfig $1 0.0.0.0 promisc up
echo "Adding $1 to br0..."
sudo /usr/sbin/brctl addif br0 $1
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```

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-linux-flavours linux-image 436
amd64 linux-image-amd64 i386 linux-image-586 437
-linux-packages amd64 experimental linux-image-3.18.0-trunk-amd64 : 438
439

```

```

$ lb config --linux-packages linux-image-3.18.0-trunk
$ echo "deb http://ftp.debian.org/debian/ experimental main" > config/archives/experimental↔
.list.chroot

```

```

440
Debian live-build .deb 441
kernel-handbook ABI linux linux-latest 442
{ () }#kernel-flavour-and-version -linux-packages {}#installing-modified-or-third- 443
party-packages
: 444
RAM 445
( aufs) 446
( squashfs) 447

```

	448
Live Debian Live	449
Joachim Breitner http://www.joachim-breitner.de/blog/archives/282-How-to-fork-privately.html How to fork privately https://www.debian.org/doc/maint-guide/ Debian	450
2:	451
packages.chroot	452
APT	453
packages.chroot APT	454
packages.chroot	455
config/packages.chroot/ Live -	456
dpkg-name	457
packages.chroot :	458
secure APT	459
config/packages.chroot/	460
Live	461
APT	462
packages.chroot APT{ }#choosing-packages-to-install	463
APT	464
APT	465
live-build Live APT ()2APT	466
debian/changeLog Debian Live APT - {APT} #apt-pinning	467
APT	468
APT (Live APT Live config/includes.chroot/) lb_config man apt	469
apt aptitude	470
<i>apt aptitude</i> lb config -apt	471
apt:	472
aptitude:	473

APT

474

APT-apt-ftp-proxy -apt-http-proxy APT:

475

476

```
$ lb config --apt-http-proxy http://proxy/
```

APT

477

478

APT:

479

480

```
$ lb config --apt-indices false
```

/etc/apt/sources.list /var/lib/apt Live APT apt-cache search apt-get install apt-get update

481

APT:

482

483

```
$ lb config --apt-recommends false
```

live-boot live-config Live live-config Live user-setup live-*

484

(Debian 7.2) Live (lb build binary.packages) {APT}#apt-pinning APT

485

apt aptitude

486

APT lb config -apt-options -aptitude-options APT apt aptitude man snapshot.debian.org Acquire::Check-Valid-Until=false APT Release -yes :

487

488

```
$ lb config --apt-options "--yes -oAcquire::Check-Valid-Until=false"
```

man Live

489

apt.conf APT config/apt/apt.conf apt-*

490

APT

491

apt_preferences(5) man APT config/archives/*.prefconfig/archives/*.pref.chrootconfig/ap config/includes.chroot/etc/apt/preferences

\${testing} Live Live sid APT sid sid Live sid \${testing} :

493

494

```
$ echo "deb http://mirror/debian/ sid main" > config/archives/sid.list.chroot
$ cat >> config/archives/sid.pref.chroot << EOF
Package: live-*
Pin: release n=sid
Pin-Priority: 600

Package: *
Pin: release n=sid
Pin-Priority: 1
EOF
```

config/package-lists/desktop.list.chroot task-lxde-desktop LXDE wifi *lxde-core lxde-core gksu gksu gnome-keyring gnome-keyring* config/apt/preferences : 495

496

```
Package: gnome-keyring
Pin: version *
Pin-Priority: -1
```


498
 Live Live preseed debconf 499

Includes 500

Live Live () live-build 2: 501

chroot : chroot/Live {Live/chroot }#live-chroot-local-includes 502

: {}#binary-local-includes 503

Live{}#terms 504

Live/chroot 505

chroot chroot/Live Live Live (/etc/skel) live Live/chroot 506

config/includes.chroot Live / Live /var/www/index.html : 507

508

```
$ mkdir -p config/includes.chroot/var/www
$ cp /path/to/my/index.html config/includes.chroot/var/www
```

: 509

510

```
-- config
[...]
```

```
|-- includes.chroot
|   |-- var
|       |-- www
|           |-- index.html
[...]
```

chroot 511

512

Live chroot /video_demo.* Live HTML config/includes.binary/ : 513

514

```
$ cp ~/video_demo.* config/includes.binary/
```

Live 515

516

chroot 517

Live/chroot

518

chroot .hook.chroot config/hooks/ chroot chroot chroot /usr/share/doc/live-build/examples/ho
chroot

520

man live-config /lib/live/config/ live-config config/includes.chroot/lib/live/config/ 521
chroot {}#installing-modified-or-third-party-packages

522

.hook.binary config/hooks/ binary_checksums chroot! /usr/share/doc/live-build/examples/ho

Debconf preseed

524

config/preseed/ (.chroot .binary) .cfg debconf preseed live-build debconf-set-selections

debconf *debconf* debconf(7)

526

live-config live-config live-config man 528
 live-config live-config live-config man 529

live 530

live live live-live boot live-build Live/chroot live live 531

live-config live live fuse config/includes.chroot/etc/live/config/user-setup.conf 532

533

```
LIVE_USER_DEFAULT_GROUPS="audio cdrom dip floppy video plugdev netdev powerdev scanner ↔
    bluetooth fuse"
```

live-config.user-default-groups=audio,cdrom,dip,floppy,video,plugdev,netdev,powerdev,scanner, 534

userlive: 535

: 536

537

```
$ lb config --bootappend-live "boot=live components username=live-user"
```

1{ }#boot-time-hooks /usr/share/doc/live-config/examples/hooks passwd (2000-passwd) 538
 config/includes.chroot/lib/live/config/

539

Live 2: 540

541

542

Live locales=en_US.UTF-8 lb config -bootappend-live locales 543

544

```
$ lb config --bootappend-live "boot=live components locales=de_CH.UTF-8"
```

545

_ () _ . /usr/share/i18n/SUPPORTED 546

X live-config console-setup -bootappend-live keyboard-layoutskeyboard-variantskeyboardoptions 547
 /usr/share/X11/xkb/rules/base.lst :

548

```
$ egrep -i '(^!|german.*switzerland)' /usr/share/X11/xkb/rules/base.lst
! model
! layout
  ch          German (Switzerland)
! variant
  legacy      ch: German (Switzerland, legacy)
```

```
de_nodeadkeys ch: German (Switzerland, eliminate dead keys)
de_sundeadkeys ch: German (Switzerland, Sun dead keys)
de_mac ch: German (Switzerland, Macintosh)
! option
```

549

X:

550

551

```
$ lb config --bootappend-live "boot=live components locales=de_CH.UTF-8 keyboard-layouts=ch↔"
```

TypeMatrix EZ-Reach 2030 USB (Bepo) Dvorak :

552

553

```
$ lb config --bootappend-live \
"boot=live components locales=fr_FR.UTF-8 keyboard-layouts=fr keyboard-variants=bepo ↔
keyboard-model=tm2030usb"
```

1 keyboard-model keyboard-* XKBMODEL XKBLAYOUTXKBVARIANTXKBOPTIONS keyboard(5) man
keyboard-variants 1 keyboard-layouts (setxkbmap(1) -variant) QWERTY Dvorak2:

554

555

```
$ lb config --bootappend-live \
"boot=live components keyboard-layouts=us,us keyboard-variants=,dvorak"
```

556

CD CD-ROM

557

Live CD

558

RAM (tmpfs) RAM

559

RAM () CD/DVD Live persistence

560

persistence (nopersistence) (USB) live-boot(7) man :

561

GPT

562

563

(OS NTFS)

564

persistence persistence.conf persistence.conf

565

USB

566

567

```
# mkfs.ext4 -L persistence /dev/sdb1
```

ext4 {USB}#using-usb-extra-space

568

:

569

570

```
# tune2fs -L persistence /dev/sdb1 # for ext2,3,4 filesystems
```

ext4 :

571

572

```
$ dd if=/dev/null of=persistence bs=1 count=0 seek=1G # for a 1GB sized image file
$ /sbin/mkfs.ext4 -F persistence
```

/usr /usr union /mnt :

573

574

```
# cp persistence /
# mount -t ext4 /persistence /mnt
```

persistence.conf

575

576

```
# echo "/usr union" >> /mnt/persistence.conf
# umount /mnt
```

persistence Live

577

persistence.conf

578

persistence persistence.conf

579

persistence.conf(5) man /dev/sdb1 ext4 APT:

580

581

```
# mkfs.ext4 -L persistence /dev/sdb1
# mount -t ext4 /dev/sdb1 /mnt
# echo "/home" >> /mnt/persistence.conf
# echo "/var/cache/apt" >> /mnt/persistence.conf
# umount /mnt
```

/home /var/cache/apt persistence.conf . and .. /lib /lib/live (/) persistence.conf / union

582

583

1

584

(persistence.conf) 12() persistence.conf persistence.conf(5) man (:)

585

: /home /root persistence 2 persistence.conf 1 # echo "/home" > persistence.conf12

586

echo "/root" > persistence.conf persistence

private work persistence persistence-label private persistence persistence-label=private persistence persistence-label=work

private work persistence.conf live-boot man

588

	589
USBlive-boot luks Live <i>cryptsetup</i>	590
<i>cryptsetup</i> :	591
	592
# apt-get install cryptsetup	
Live <i>cryptsetup</i> :	593
	594
\$ lb config \$ echo "cryptsetup" > config/package-lists/encryption.list.chroot	
<i>cryptsetup</i> Live persistence persistence-encryption=luks :	595
	596
\$ lb config --bootappend-live "boot=live components persistence persistence-encryption=luks↔" "	
/dev/sdc2 USB	597
USBlive-manual ls -l /dev/disk/by-id :	598
	599
# cryptsetup --verify-passphrase luksFormat /dev/sdc2	
luks live :	600
	601
# cryptsetup luksOpen /dev/sdc2 live	
:	602
	603
# dd if=/dev/zero of=/dev/mapper/live	
persistence	604
	605
# mkfs.ext4 -L persistence /dev/mapper/live	
/mnt	606
	607
# mount /dev/mapper/live /mnt	
persistence.conf {persistence.conf }#persistence-conf	608
	609
# echo "/ union" > /mnt/persistence.conf	

Live

: 610

611

```
# umount /mnt
```

: 612

613

```
# cryptsetup luksClose live
```

Live ISO hybrid USB USBUSB Live live-boot 614

616
617
live-build *syslinux* () 618
/usr/share/live/build/bootloaders config/bootloaders 1 config/bootloaders/isolinux 619
isolinux
640x480 splash.png splash.svg 620
syslinux 0 621
iso-hybrid **isolinux.cfg** 1/105 **isolinux.cfg** 622

```
include menu.cfg  
default vesamenu.c32  
prompt 0  
timeout 50
```

ISO 624
ISO9660 625
LB_ISO_APPLICATION/--iso-application NAME: 128 626
LB_ISO_PREPARER/--iso-preparer NAME: live-build 128 627
LB_ISO_PUBLISHER/--iso-publisher NAME: 128 628
LB_ISO_VOLUME/--iso-volume NAME: IDWindows Apple Mac OS 32 629

Debian

630

Debian

631

Live Debian

632

Debian - Debian d-i

633

Debian

634

3:

635

Debian : Live () Debian CD Debian initrd Live

636

debootstrap .deb Debian Debian

637

preseed Debian preseed live-build

638

LiveDebian : Live () Debian initrd

639

debootstrap Live live-installer udeb

640

Debian

641

: Live Live live-installer/enable=false preseed live-installer

642

Debian : Debian d-i debian-installer-launcher

643

live-build Debian lb config Live d-i :

644

645

```
$ lb config --architectures i386 --linux-flavours 586 \
  --debian-installer live
$ echo debian-installer-launcher >> config/package-lists/my.list.chroot
```

preseed Debian

646

「<https://www.debian.org/releases/stable/i386/apb.html>」 Debian Bpreseed live-build preseed.cfg
 config/includes.installer/ en_US preseed :

647

648

```
$ echo "d-i debian-installer/locale string en_US" \
  >> config/includes.installer/preseed.cfg
```

Debian

649

d-i udeb config/packages.binary/ {Live/chroot} #live-chroot-local-includes config/includes.ins
 initrd

	653
GPL 3	654
{ }#contact	655
<code>\${project}Git{Git}#git-repositories</code> debian debian-next 2debian-next live-bootlive-buildlive-configlive-imageslive-manuallive-tools	656
	657
fast-forward	658
	659
	660
	661
Fixing/Adding/Removing/Correcting/Translating/...	662
changelog 180	663
	664
	665
live-manual live-manual { }#how-to-contribute	666
:	667
	668
<pre>\$ mkdir -p ~/.ssh/keys \$ wget http://live-systems.org/other/keys/git@live-systems.org -O ~/.ssh/keys/git@live-systems.org \$ wget http://live-systems.org/other/keys/git@live-systems.org.pub -O ~/.ssh/keys/git@live-systems.org.pub \$ chmod 0600 ~/.ssh/keys/git@live-systems.org*</pre>	
openssh-client :	669
	670
<pre>\$ cat >> ~/.ssh/config << EOF Host live-systems.org Hostname live-systems.org User git IdentitiesOnly yes IdentityFile ~/.ssh/keys/git@live-systems.org EOF</pre>	
ssh live-manual :	671
	672
<pre>\$ git clone git@live-systems.org:/live-manual.git \$ cd live-manual && git checkout debian-next</pre>	
Git:	673
	674

```
$ git config user.name "John Doe"  
$ git config user.email john@example.org
```

: debian-next

675

676

677

```
$ git commit -a -m "Adding a section on applying patches."
```

:

678

679

```
$ git push
```


	681
Live -	682
:	683
「 http://live-systems.org/ 」	684
live-buildlive-bootlive-configlive-tools (live-build 4 4.x live-build)	685
() live-buildlive-bootlive-configlive-tools Live	686
	687
Debian (testing) Debian (unstable)	688
(testing) (unstable) (stable)} live-build *{ (stable)	689
「 http://live-systems.org/ 」 status	690
2: (testing) (unstable) (unstable) (testing) (unstable) (APTPIN)	691
	692
Live	693
	694
()	695
	696
live-build	697
:	698
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live-build	700
<i>debootstrap</i>	701
Live	702
Live	703
Live live-boot	704
Live live-config	705
Live live-tools	706
tee auto/build ({}#managing-a-configuration)	707
	708
	709

```
# lb build 2>&1 | tee build.log
```

```
live-boot live-config /var/log/live/ 710
config/ tar () () lb config -dump ( config/ ) 711
LC_ALL=C LC_ALL=en_US live-build 712
713
714
715
Live debian-live 716
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718
live-build debootstrap Debian Debian () 719
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721
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Live Debian - Live debootstrap lbbootstrap -debug 723
724
725
{}#collect-information / 726
727
Live Live : 728
729
730
Live 731
live-buildlive-bootlive-configlive-tools 732
```

	733
<code>\${project}</code> (BTS) 「https://bugs.debian.org/」 reportbug	734
live-build live-boot live-config debian-live	735
(Ubuntu) Debian Debian Debian Debian BTS	736

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Live	739
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Bash	741
POSIX - 'foo' \$(foo)	742
'sh -n' 'checkbashisms'	743
'set -e'	744
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	747
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Linux :	749
:	750
	751
<pre>if foo; then bar fi</pre>	
:	752
	753
<pre>if foo then bar fi</pre>	
:	754
:	755
	756
<pre>Foo () { bar }</pre>	
:	757
	758
<pre>Foo () { bar }</pre>	

	759
	760
live-build LB_	761
live-build	762
LB	
live-build	763
_	
LB	
live-config LIVE_	764
live-config _	765
{ } \$FOO \${FOO}	766
: \${FOO} "\${FOO}"	767
:	768
:	769
	770
FOO=bar	
:	771
	772
FOO="bar"	
:	773
:	774
	775
if [-f "\${FOO}"/foo/"\${BAR}"/bar] then foobar fi	
:	776
	777
if [-f "\${FOO}/foo/\${BAR}/bar"] then foobar fi	
	778
sed sed -e 's foo bar '	779
test []if [-x /bin/foo]; ...if test -x /bin/foo; ...	780

test case

781

782

Debian \${project}

Debian Live Live

debian debian-security debian-live builddd

(debian-live---.iso)

debian-cd (udeb)

cdimage.debian.org

debian debian-security

cdimage.debian.org

Debian

Debian ftp.debian.org archive.debian.org chroot Live

```
$ sed \  
-e 's|@MAJOR@|9.0|g' \  
-e 's|@MINOR@|9.0.1|g' \  
-e 's|@CODENAME@|stretch|g' \  
-e 's|@ANNOUNCE@|2017/msgXXXXX.html|g'
```

Updated Live @MAJOR@: @MINOR@ released

The Live Systems Project is pleased to announce the @MINOR@ update of the Live images for the stable distribution Debian @MAJOR@ (codename "@CODENAME").

The images are available for download at:

<<http://live-systems.org/cdimage/release/current/>>

and later at:

<<http://cdimage.debian.org/cdimage/release/current-live/>>

This update includes the changes of the Debian @MINOR@ release:

<<https://lists.debian.org/debian-announce/@ANNOUNCE@>>

Additionally it includes the following Live-specific changes:

- * [LIVE]
- * [LIVE]
- * []

About Live Systems

The Live Systems Project produces the tools used to build official live systems and the official live images themselves for Debian.

About Debian

The Debian Project is an association of Free Software developers who volunteer their time and effort in order to produce the completely free operating system Debian.

Contact Information

For further information, please visit the Live Systems web pages at <<http://live-systems.org/>>, or contact the Live Systems team at <debian-live@lists.debian.org>.

Git

803

Git	804
<code>{project}</code> 「 http://live-systems.org/gitweb/ 」 git URL : <code>://live-systems.org/git/ live-manual</code>	805
<pre>\$ git clone git://live-systems.org/git/live-manual.git</pre>	806
<pre>\$ git clone https://live-systems.org/git/live-manual.git</pre>	807
<pre>\$ git clone http://live-systems.org/git/live-manual.git</pre>	808
<code>git@live-systems.org:/</code>	809
<code>live-manual ssh</code>	810
<pre>\$ git clone git@live-systems.org:live-manual.git</pre>	811
gitdebian debian-next	812
debian debian-next	813
<pre>\$ git checkout debian-next</pre>	814
debian-next fast-forward debian <code>git pull -rebase</code>	815
Live debian-next <code>mrconfig git mr</code>	816
<pre>\$ mr bootstrap http://live-systems.org/other/mr/mrconfig</pre>	817
Debian debian-next live-images <code>{Git}#clone-configuration-via-git</code>	818
	819

822
Live Live 3 823

824
{ }#requirements {live-build }#installing-live-build live-build 825

{ }#distribution-mirrors-build-time lb config /etc/live/build.conf LB_MIRROR_* : 826

827

```
LB_MIRROR_BOOTSTRAP="http://mirror/debian/"  
LB_MIRROR_CHROOT_SECURITY="http://mirror/debian-security/"  
LB_MIRROR_CHROOT_BACKPORTS="http://mirror/debian-backports/"
```

1: 828

: live-build 829

live-build base (Xorg) Live ISO hybrid Live 830

: 831

832

```
$ mkdir tutorial1 ; cd tutorial1 ; lb config
```

config/ 833

tee 834

835

```
# lb build 2>&1 | tee build.log
```

live-image-i386.hybrid.iso ISO hybrid Qemu ISO VirtualBox ISO {ISO}#burning-iso-image USB ISO hybrid USB 836

2: 837

: 838

Live 839

840

```
$ mkdir tutorial2  
$ cd tutorial2  
$ lb config  
$ echo "task-lxde-desktop iceweasel" >> config/package-lists/my.list.chroot
```

LXDE config/includes.chroot/etc/iceweasel/profile/ 841

1 : 842

843

```
# lb build 2>&1 | tee build.log
```

```
{ 1}#tutorial-1 844
```

```
3: 845
```

```
: USB 846
```

```
git{}#managing-a-configuration auto 847
```

848

849

```
$ mkdir -p tutorial3/auto
$ cp /usr/share/doc/live-build/examples/auto/* tutorial3/auto/
$ cd tutorial3
```

```
auto/config : 850
```

851

```
#!/bin/sh

lb config noauto \
  --architectures i386 \
  --linux-flavours 686-pae \
  "${@}"
```

```
lb config auto/config : 852
```

853

```
$ lb config
```

```
: 854
```

855

```
$ echo "task-lxde-desktop iceweasel xchat" >> config/package-lists/my.list.chroot
```

```
-architectures i386 amd64 32 -linux-flavours 686-pae lxde iceweasel xchat 856
```

```
: 857
```

858

```
# lb build
```

```
2>&1 | tee build.log auto/build 859
```

```
( 1 ) git auto : 860
```

861

```
$ git init
$ cp /usr/share/doc/live-build/examples/gitignore .gitignore
$ git add .
$ git commit -m "Initial import."
```

2 862

vlc 863

lb clean lb build 864

```
# lb clean
```

vlc config/package-lists/my.list.chroot : 866

```
$ echo vlc >> config/package-lists/my.list.chroot
```

:

```
# lb build
```

:

```
$ git commit -a -m "Adding vlc media player."
```

config/ config LB_* lb clean auto lb config 872

Live 873

VNC 874

: live-build VNC 875

2: 1 live-build Packages () 2 *xorggdm3metacityxvnc4viewer* 876

```
$ mkdir vnc-kiosk-client
$ cd vnc-kiosk-client
$ lb config -a i386 -k 686-pae --apt-recommends false
$ echo '! Packages Priority standard' > config/package-lists/standard.list.chroot
$ echo "xorg gdm3 metacity xvnc4viewer" > config/package-lists/my.list.chroot
```

APT 878

apt-cache : 879

```
$ apt-cache depends live-config live-boot
```

live-config live-boot : user-setup sudoRAM live-tools Live eject : 881

```
$ echo "live-tools user-setup sudo eject" > config/package-lists/recommends.list.chroot
```

```
/etc/skel config/includes.chroot .xsession metacity xvncviewer 192.168.1.2 5901 883  
:
```

```
$ mkdir -p config/includes.chroot/etc/skel  
$ cat > config/includes.chroot/etc/skel/.xsession << EOF  
#!/bin/sh  
  
/usr/bin/metacity &  
/usr/bin/xvncviewer 192.168.1.2:1  
  
exit  
EOF
```

```
: 885
```

```
# lb build 886
```

128MB USB 888

: 128MB USB 889

128MB *localepurge* -debootstrap-options 890

```
$ lb config --apt-indices false --apt-recommends false --debootstrap-options "--variant=↔  
minbase" --firmware-chroot false --memtest none 891
```

-apt-recommends false 2{APT}#tweaking-apt-to-save-space 892

```
$ echo "user-setup sudo" > config/package-lists/recommends.list.chroot 893
```

```
: 894
```

```
# lb build 2>&1 | tee build.log 895
```

110MB { 1}#tutorial-1 192MB 896

-apt-indices false **APT Live** *apt* apt-get update -apt-recommends false -debootstrap-options 897
"-variant=minbase" -firmware-chroot false -memtest none

: /usr/share/doc/live-build/examples/hooks stripped.hook.chroot 62MB *debootstrap* 898

GNOME 899

: GNOME 900

i386 iso-hybrid GNOME GNOME Debian 901

live-build grep-dctrl tasksel-data :

902

903

```
# apt-get install dctrl-tools tasksel-data
```

904

905

```
$ grep-dctrl -FTest-lang de /usr/share/tasksel/descs/debian-tasks.desc -sTask
Task: german
```

:

906

907

```
$ grep-dctrl -FEnhances german /usr/share/tasksel/descs/debian-tasks.desc -sTask
Task: german-desktop
Task: german-kde-desktop
```

de_CH.UTF-8 ch {}#using-metapackages task- :

908

909

```
$ mkdir live-gnome-ch
$ cd live-gnome-ch
$ lb config \
  -a i386 \
  --bootappend-live "boot=live components locales=de_CH.UTF-8 keyboard-layouts=ch" \
  --debian-installer live
$ echo '! Packages Priority standard' > config/package-lists/standard.list.chroot
$ echo task-gnome-desktop task-german task-german-desktop >> config/package-lists/desktop.↵
  list.chroot
$ echo debian-installer-launcher >> config/package-lists/installer.list.chroot
```

Live *debian-installer-launcher* 586

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	913
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Live	915
: {}#how-to-contribute	916
	917
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	922
	923
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Live	925
	926
he ()she ()s/he s(he) ()they ()	927
	928
	929
	930
	931
	932
	933
	934
()	935
	936
changelog!	937
	938
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(100)	940
() 2	941
	942
	943
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2	945
!	946
	947
	948
IRC	949
	950
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Live chroot VM	952
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live-manual GNU GPL ()	962
	963
- !	964
-	965
- <code>\${testing} sid spellmake spell</code>	966
-	967
	968
11.11.1.11.1.2 ... 1.21.2.11.2.2 ... 22.1 ...	969
First ()second (2)third (3) ... First ()Then ()After that ()Finally ()...	970
	971
live-manual	972
「 SiSU 」 {SiSU } http://www.sisudoc.org/sisu/en/html/sisu_manual/markup.html	973
<code>\$ sisu --help markup</code>	

- /: 974
975

```
*{foo}* !{foo}!
```

foo foo

- : 977
978
979

```
{foo}/
```

foo Debian

- : 980
981
982

```
#{foo}#
```

foo

- : 983
984
985

```
code{  
  $ foo  
  # bar  
}code
```

```
$ foo  
# bar
```

```
code{ }code
```

Live

Debian

: {}#how-to-contribute {}#translation

po #

<i>TN, Translator's Note ()</i>	997
()()	998
	999
you	1000
	1001
	1002
	1003
potpo	1004
	1005
100% .po	1006
	1007
Enter	1008
n	1009
	1010
:	1011
- ()	1012
-	1013
-	1014
- (::)	1015
-	1016
-	1017