



Clear Ballot

ClearCount 1.4

System Identification Guide

(Vote-by-Mail Campaign 2)

ClearCount System Identification Guide (Vote-by-Mail Campaign 2)

Clear Ballot Part Number: 100047-10012

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Preface

This section defines the purpose of this document. It contains the following subsections.

- About this document
- Scope of this document
- Intended audience

About this document

This document enables you to verify the installed files for ClearCount.



A ClearVote™ system can comprise the ClearAccess™, ClearAudit™, ClearCast™, ClearCount™, and ClearDesign™ products. Jurisdictions are not required to purchase all products. You can ignore references to any ClearVote components that are not part of your voting system. Also ignore implementation options that are not relevant to your policies and procedures.

Scope of this document

This document provides the following information about the ClearCount system.

- [Scanner identification](#)
- [Clear Ballot product files](#)
- [System packages](#)

Intended audience

This document is intended for state and federal election officials and their voting system test laboratories as part of the Technical Data Package (TDP) required to certify the ClearVote voting system for use. This document is also used by Clear Ballot personnel who support election officials and election staff.

Chapter 1. Scanner identification

1.1 fi-6400 and fi-6800 identification

The following figures show the front and back of the fi-6400 or fi-6800 scanner.



Figure 1-1. Front view of fi-6400 or fi-6800 scanner



Figure 1-2. Back view of fi-6400 or fi-6800 scanner

1.2 fi-7180 identification

The following figures show the front and back of the fi-7180 scanner.

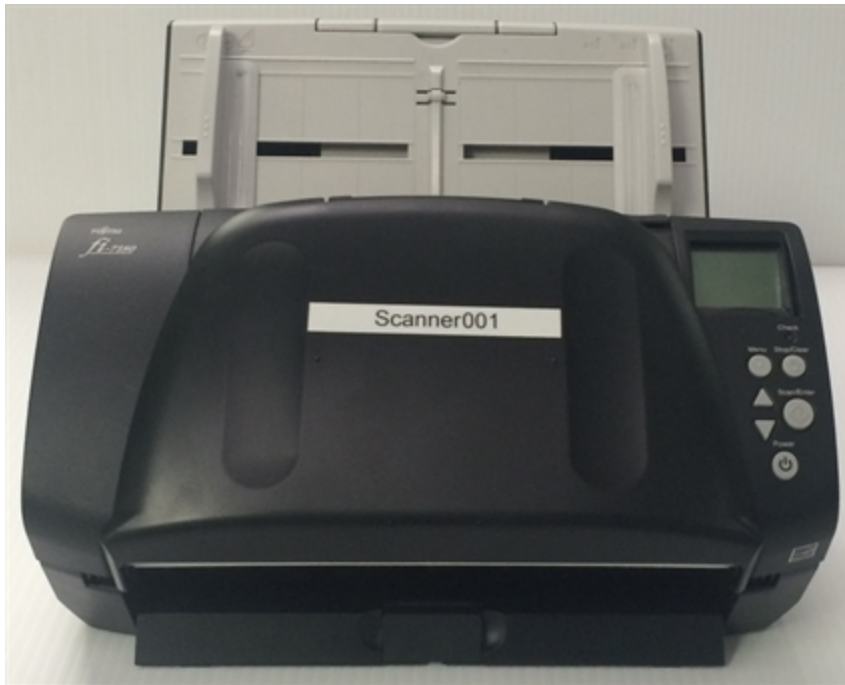


Figure 1-3. Front view of fi-7180 scanner



Figure 1-4. Back view of fi-7180 scanner

Chapter 2. ClearCount files



For information about the location of run-time files, see the *ClearCount Software Design and Specification*.

Verifying installed software

To verify that the installed software matches the certified version:

1. Copy the files installed on the ClearCount server to removable media.
2. Identify a computer running a file integrity verification application, for example, fssum.
3. Load the removable media containing the Clear Ballot files on that computer.
4. Generate SHA-256 hashes for each of the Clear Ballot files.
5. Compare the hash generated for each file to that provided for the file in the following table. If a hash:
 - Matches—The file is unmodified.
 - Does not match—The file is modified, improperly installed, or rendered nonmatching for some other reason. In this case, the software on the server no longer matches the certified version.
6. If any mismatch occurs, do one of the following:
 - Follow jurisdictional procedures to resolve the discrepancy.
 - Contact Clear Ballot Technical Support for assistance.

2.1 Installed ClearCount product files

The following table lists the file specification and SHA-256 hash for each of the Clear Ballot-authored files installed on the ClearCount server.

File	Date
/usr/share/cbg/web/BallotAuditLog	2017-05-17 07:09:43
/usr/share/cbg/web/BallotMonitor	2017-05-17 07:09:39
/usr/share/cbg/web/BallotBackground	2017-05-17 07:09:23
/usr/share/cbg/web/webCBG.fcgi	2017-05-17 07:09:04
/usr/share/cbg/client/SetupScanner.exe	2017-05-17 07:07:01



File	Date
/usr/share/cbg/client/GetScannerInfo.exe	2017-05-17 07:06:54
/usr/share/cbg/client/BallotDeleteBox.exe	2017-05-17 07:06:49
/usr/share/cbg/client/BallotTabulator.exe	2017-05-17 07:06:41
/usr/share/cbg/web/media/js/ballot_remaking.js	2017-04-21 22:43:07
/usr/share/cbg/web/sql/cbgweb.sql	2017-01-14 14:50:54
/usr/share/cbg/client/Update5900C.bat	2016-12-22 13:17:02

File	Date
/usr/share/cbg/client/Update5950.bat	2016-12-22 13:16:50
/usr/share/cbg/client/Update6140.bat	2016-12-22 13:16:38
/usr/share/cbg/client/Update6400.bat	2016-12-22 13:16:25
/usr/share/cbg/client/Update6670.bat	2016-12-22 13:16:11
/usr/share/cbg/client/Update7180.bat	2016-12-22 13:15:38
/usr/share/cbg/client/Update6800-18-22.bat	2016-12-22 13:15:23



File	Date
/usr/share/cbg/client/Update6800.bat	2016-12-22 13:15:01
/usr/share/cbg/client/BallotScoring.exe	2016-11-22 11:51:16
/usr/share/cbg/client/md_tabulate.bat	2016-11-10 14:13:21
/usr/share/cbg/client/StartTabulator.cmd	2016-10-05 12:35:11
/usr/share/cbg/client/fi7180/CBG fi-7180 Profile.dsi	2016-09-02 10:11:28
/usr/share/cbg/client/fi7180/CBG fi-7180 Profile.ini	2016-09-02 10:11:22

File	Date
/usr/share/cbg/client/fi6140/CBG fi-6140Z Profile.ini	2016-06-28 14:16:49
/usr/share/cbg/web/media/css/ballot_remaking.css	2016-05-26 11:21:04
/usr/share/cbg/client/fi6400/CBG fi-6400 Profile.ini	2016-03-13 16:19:22
/usr/share/cbg/client/fi6400/CBG fi-6400 Profile.dsi	2016-03-13 16:19:14
/usr/share/cbg/client/fi6800/CBG fi6800 18-22 Profile.ini	2016-02-23 10:06:25
/usr/share/cbg/client/fi6670/CBG fi6670 Profile.ini	2016-02-23 10:05:57



File	Date
/usr/share/cbg/client/DeleteBox.bat	2016-02-03 14:35:07
/usr/share/cbg/web/media/js/jquery.dataTables.neutralsorting.js	2015-11-08 19:51:58
/usr/share/cbg/web/media/css/style.css	2015-10-29 08:49:15
/usr/share/cbg/web/media/img/favicon.ico	2015-07-15 12:25:36
/usr/share/cbg/web/media/js/jquery.dataTables.customizations.js	2015-04-16 18:44:06
/usr/share/cbg/client/fi5900C/CBG fi5900C Profile.dsi	2014-09-03 09:23:45

File	Date
/usr/share/cbg/client/fi5900C/CBG fi5900C Profile.ini	2014-09-03 06:03:58
/usr/share/cbg/web/media/js/jquery.dataTables.five_button.js	2014-07-29 12:26:53
/usr/share/cbg/client/fi5950/CBG fi5950 Profile.dsi	2014-05-27 23:17:30
/usr/share/cbg/client/fi5950/CBG fi5950 Profile.ini	2014-05-27 23:10:30
/usr/share/cbg/web/media/js/jquery.pep.min.js	2014-03-28 12:01:56
/usr/share/cbg/client/fi6800/CBG fi6800 18-22 Profile.dsi	2013-11-15 11:09:48



File	Date
/usr/share/cbg/client/fi6800/CBG fi6800 Profile.dsi	2013-11-15 11:08:19
/usr/share/cbg/web/media/img/ballot_remaking.png	2013-10-07 19:51:18
/usr/share/cbg/web/media/css/TableTools.css	2013-08-12 19:27:16
/usr/share/cbg/web/media/js/jquery-migrate-1.2.1.js	2013-07-31 14:40:05
/usr/share/cbg/web/media/js/jquery-1.10.2.min.js	2013-07-31 14:00:47
/usr/share/cbg/web/media/js/chosen.jquery.min.js	2013-07-30 12:06:40

File	Date
/usr/share/cbg/web/media/css/chosen-sprite.png	2013-07-30 12:06:40
/usr/share/cbg/web/media/css/chosen-sprite@2x.png	2013-07-30 12:06:40
/usr/share/cbg/web/media/css/chosen.css	2013-07-30 12:06:40
/usr/share/cbg/client/fi6800/CBG fi6800 Profile.ini	2013-07-11 11:42:06
/usr/share/cbg/client/fi5950/CBG fi5950 Profile_BAR.jpg	2013-07-11 11:41:08
/usr/share/cbg/client/fi6800/CBG fi6800 Profile_BAR.jpg	2013-07-11 11:41:08



File	Date
/usr/share/cbg/client/fi5900C/CBG fi5900C Profile_ BAR.jpg	2013- 07-11 08:41: 08
/usr/share/cbg/client/fi6670/CBG fi6670 Profile.dsi	2013- 07-04 22:50: 46
/usr/share/cbg/web/media/js/bootstrap.js	2013- 06-08 18:25: 04
/usr/share/cbg/web/media/img/glyphicons-halflings.png	2013- 06-08 18:25: 04
/usr/share/cbg/web/media/img/glyphicons-halflings- white.png	2013- 06-08 18:25: 04
/usr/share/cbg/web/media/css/bootstrap.css	2013- 06-08 18:25: 04



File	Date
/usr/share/cbg/web/media/js/less-1.3.3.min.js	2013-06-05 16:17:47
/usr/share/cbg/web/media/js/jquery.hotkeys.js	2013-05-25 14:22:39
/usr/share/cbg/web/media/swf/copy_csv_xls_pdf.swf	2013-03-04 06:31:48
/usr/share/cbg/web/media/js/TableTools.min.js	2013-03-04 06:31:44
/usr/share/cbg/web/media/img/pdf.png	2013-03-04 06:31:36
/usr/share/cbg/web/media/img/xls.png	2013-03-04 06:31:36

File	Date
/usr/share/cbg/web/media/js/ZeroClipboard.js	2013-03-04 06:31:36
/usr/share/cbg/web/media/img/print_hover.png	2013-03-04 06:31:36
/usr/share/cbg/web/media/img/copy_hover.png	2013-03-04 06:31:36
/usr/share/cbg/web/media/img/pdf_hover.png	2013-03-04 06:31:36
/usr/share/cbg/web/media/img/csv_hover.png	2013-03-04 06:31:36
/usr/share/cbg/web/media/img/copy.png	2013-03-04 06:31:36

File	Date
/usr/share/cbg/web/media/img/print.png	2013-03-04 06:31:36
/usr/share/cbg/web/media/img/csv.png	2013-03-04 06:31:36
/usr/share/cbg/web/media/img/xls_hover.png	2013-03-04 06:31:36
/usr/share/cbg/client/fi6140/CBG fi-6140Z Profile.dsi	2012-11-26 12:38:33
/usr/share/cbg/web/media/js/ColVis.min.js	2012-09-23 13:27:26
/usr/share/cbg/web/media/js/ColVis.js	2012-09-23 13:27:24

File	Date
/usr/share/cbg/web/media/js/jquery.dataTables.min.js	2012-09-23 13:27:10
/usr/share/cbg/web/media/img/xs-CB-Logo-White-01.png	2012-08-10 14:46:50
/usr/share/cbg/web/media/img/xs-CB-Lockup-Color-01.png	2012-08-10 14:46:50
/usr/share/cbg/web/media/img/xs-CB-Logotype-White-01.png	2012-08-10 14:46:50
/usr/share/cbg/web/media/js/jquery.FixedHeader.min.js	2012-04-15 18:49:28
/usr/share/cbg/web/media/img/sort_both.png	2012-02-01 15:08:00

File	Date
/usr/share/cbg/web/media/img/forward_enabled_hover.png	2012-02-01 15:08:00
/usr/share/cbg/web/media/img/sort_desc_disabled.png	2012-02-01 15:08:00
/usr/share/cbg/web/media/img/forward_disabled.png	2012-02-01 15:08:00
/usr/share/cbg/web/media/img/forward_enabled.png	2012-02-01 15:08:00
/usr/share/cbg/web/media/img/back_enabled_hover.png	2012-02-01 15:08:00
/usr/share/cbg/web/media/img/sort_asc_disabled.png	2012-02-01 15:08:00

File	Date
/usr/share/cbg/web/media/img/back_disabled.png	2012-02-01 15:08:00
/usr/share/cbg/web/media/img/back_enabled.png	2012-02-01 15:08:00
/usr/share/cbg/web/media/img/sort_asc.png	2012-02-01 15:08:00
/usr/share/cbg/web/media/img/sort_desc.png	2012-02-01 15:08:00
/usr/share/cbg/web/media/js/jquery.tooltip.min.js	2008-08-24 23:59:38

Chapter 3. System packages

The following system packages are installed with ClearCount. Clear Ballot does *not* modify any of the listed third-party system packages.

Package	Version	Description
accountsservice	0.6.40-2ubuntu11.3	query and manipulate user account information
acl	2.2.52-3	Access control list utilities
acpid	1:2.0.26-1ubuntu2	Advanced Configuration and Power Interface event daemon
adduser	3.113+nmu3ubuntu4	add and remove users and groups
adwaita-icon-theme	3.18.0-2ubuntu3.1	default icon theme of GNOME (small subset)
apache2	2.4.18-2ubuntu3.1	Apache HTTP Server
apache2-bin	2.4.18-2ubuntu3.1	Apache HTTP Server (modules and other binary files)
apache2-data	2.4.18-2ubuntu3.1	Apache HTTP Server (common files)
apache2-utils	2.4.18-2ubuntu3.1	Apache HTTP Server (utility programs for web servers)
apparmor	2.10.95-0ubuntu2.5	user-space parser utility for AppArmor
apport	2.20.1-0ubuntu2.5	automatically generate crash reports for debugging
apport-symptoms	0.20	symptom scripts for apport
apt	1.2.19	commandline package manager
apt-file	2.5.5ubuntu1	search for files within Debian packages (command-line interface)
apt-transport-https	1.2.19	https download transport for APT
apt-utils	1.2.19	package management related utility programs
apt-xapian-index	0.47ubuntu8.3	maintenance and search tools for a Xapian index of Debian packages

Package	Version	Description
aptitude	0.7.4-2ubuntu2	terminal-based package manager
aptitude-common	0.7.4-2ubuntu2	architecture independent files for the aptitude package manager
at	3.1.18-2ubuntu1	Delayed job execution and batch processing
at-spi2-core	2.18.3-4ubuntu1	Assistive Technology Service Provider Interface (dbus core)
attr	1:2.4.47-2	Utilities for manipulating filesystem extended attributes
autotools-dev	20150820.1	Update infrastructure for config. {guess
sub} files	base-files	9.4ubuntu4.4
Debian base system miscellaneous files	base-passwd	3.5.39
Debian base system master password and group files	bash	4.3-14ubuntu1.1
GNU Bourne Again SHell	bash-completion	1:2.1-4.2ubuntu1.1
programmable completion for the bash shell	bc	1.06.95-9build1
GNU bc arbitrary precision calculator language	bind9-host	1:9.10.3.dfsg.P4-8ubuntu1.5
Version of 'host' bundled with BIND 9.X	binutils	2.26.1-1ubuntu1~16.04.3
GNU assembler	linker and binary utilities	biosdevname
0.4.1-0ubuntu9	apply BIOS-given names to network devices	bsdmainutils
9.0.6ubuntu3	collection of more utilities from FreeBSD	bsdutils
1:2.27.1-6ubuntu3.2	basic utilities from 4.4BSD-Lite	build-essential
12.1ubuntu2	Informational list of build-essential packages	busybox-initramfs
1:1.22.0-15ubuntu1	Standalone shell setup for initramfs	busybox-static

Package	Version	Description
1:1.22.0-15ubuntu1	Standalone rescue shell with tons of builtin utilities	byobu
5.106-0ubuntu1	text window manager	shell multiplexer
integrated DevOps environment	bzip2	1.0.6-8
high-quality block-sorting file compressor - utilities	ca-certificates	20160104ubuntu1
Common CA certificates	cgmanager	0.39-2ubuntu5
Central cgroup manager daemon	cifs-utils	2:6.4-1ubuntu1
Common Internet File System utilities	clearaudit	0.1.0-1
ClearAudit Election Verification System	colord	1.2.12-1ubuntu1
system service to manage device colour profiles -- system daemon	colord-data	1.2.12-1ubuntu1
system service to manage device colour profiles -- data files	command-not-found	0.3ubuntu16.04.2
Suggest installation of packages in interactive bash sessions	command-not-found-data	0.3ubuntu16.04.2
Set of data files for command-not-found.	console-setup	1.108ubuntu15.3
console font and keymap setup program	console-setup-linux	1.108ubuntu15.3
Linux specific part of console-setup	consolekit	0.4.6-5
framework for defining and tracking users	sessions and seats	coreutils
8.25-2ubuntu2	GNU core utilities	cpio
2.11+dfsg-5ubuntu1	GNU cpio -- a program to manage archives of files	cpp
4:5.3.1-1ubuntu1	GNU C preprocessor (cpp)	cpp-4.7
4.7.4-3ubuntu12	GNU C preprocessor	cpp-4.8
4.8.5-4ubuntu2	GNU C preprocessor	cpp-5

Package	Version	Description
5.4.0-6ubuntu1~16.04.4	GNU C preprocessor	crda
3.13-1	wireless Central Regulatory Domain Agent	cron
3.0pl1-128ubuntu2	process scheduling daemon	curl
7.47.0-1ubuntu2.2	command line tool for transferring data with URL syntax	dash
0.5.8-2.1ubuntu2	POSIX-compliant shell	dbus
1.10.6-1ubuntu3.3	simple interprocess messaging system (daemon and utilities)	dconf-gsettings-backend
0.24.0-2	simple configuration storage system - GSettings back-end	dconf-service
0.24.0-2	simple configuration storage system - D-Bus service	debconf
1.5.58ubuntu1	Debian configuration management system	debconf-i18n
1.5.58ubuntu1	full internationalization support for debconf	debhelper
9.20160115ubuntu3	helper programs for debian/rules	debianutils
4.7	Miscellaneous utilities specific to Debian	dh-python
2.20151103ubuntu1.1	Debian helper tools for packaging Python libraries and applications	dh-strip-nondeterminism
0.015-1	debhelper add-on to strip non-determinism from files	diffutils
1:3.3-3	File comparison utilities	distro-info-data
0.28ubuntu0.2	information about the distributions' releases (data files)	dkms
2.2.0.3-2ubuntu11.3	Dynamic Kernel Module Support Framework	dmeventd
2:1.02.110-1ubuntu10	Linux Kernel Device Mapper event daemon	dmidecode
3.0-2ubuntu0.1	SMBIOS/DMI table decoder	dmsetup

Package	Version	Description
2:1.02.110-1ubuntu10	Linux Kernel Device Mapper userspace library	dnsmutils
1:9.10.3.dfsg.P4-8ubuntu1.5	Clients provided with BIND	dosfstools
3.0.28-2ubuntu0.1	utilities for making and checking MS-DOS FAT filesystems	dpkg
1.18.4ubuntu1.1	Debian package management system	dpkg-dev
1.18.4ubuntu1.1	Debian package development tools	e2fslibs
1.42.13-1ubuntu1	ext2/ext3/ext4 file system libraries	e2fsprogs
1.42.13-1ubuntu1	ext2/ext3/ext4 file system utilities	ed
1.10-2	classic UNIX line editor	efibootmgr
0.12-4	Interact with the EFI Boot Manager	eject
2.1.5+deb1+cvs20081104-13.1	ejects CDs and operates CD-Changers under Linux	ethtool
1:4.5-1	display or change Ethernet device settings	exfat-fuse
1.2.3-1	read and write exFAT driver for FUSE	exfat-utils
1.2.3-1	utilities to create	check
label and dump exFAT filesystem	fail2ban	0.9.3-1
ban hosts that cause multiple authentication errors	fakroot	1.20.2-1ubuntu1
tool for simulating superuser privileges	file	1:5.25-2ubuntu1
Determines file type using magic numbers	findutils	4.6.0+git+20160126-2
utilities for finding files--find	xargs	fontconfig
2.11.94-0ubuntu1.1	generic font configuration library - support binaries	fontconfig-config
2.11.94-0ubuntu1.1	generic font configuration library - configuration	fonts-dejavu-core

Package	Version	Description
2.35-1	Vera font family derivate with additional characters	fonts-ubuntu-font-family-console
1:0.83-0ubuntu2	Ubuntu Font Family Linux console fonts	sans-serif monospace
friendly-recovery	0.2.31	Make recovery more user-friendly
ftp	0.17-33	classical file transfer client
fuse	2.9.4-1ubuntu3.1	Filesystem in Userspace
g++	4:5.3.1-1ubuntu1	GNU C++ compiler
g++-5	5.4.0-6ubuntu1~16.04.4	GNU C++ compiler
gawk	1:4.1.3+dfsg-0.1	GNU awk
a pattern scanning and processing language	gcc	4:5.3.1-1ubuntu1
GNU C compiler	gcc-4.7	4.7.4-3ubuntu12
GNU C compiler	gcc-4.7-base	4.7.4-3ubuntu12
GCC	the GNU Compiler Collection (base package)	gcc-4.8
4.8.5-4ubuntu2	GNU C compiler	gcc-4.8-base
4.8.5-4ubuntu2	GCC	the GNU Compiler Collection (base package)
gcc-5	5.4.0-6ubuntu1~16.04.4	GNU C compiler
gcc-5-base	5.4.0-6ubuntu1~16.04.4	GCC
the GNU Compiler Collection (base package)	gcc-6-base	6.0.1-0ubuntu1
GCC	the GNU Compiler Collection (base package)	gcj-5-jre-lib
5.4.0-6ubuntu1~16.04.4	Java runtime library for use with gcj (jar files)	gdb
7.11.1-0ubuntu1~16.04	GNU Debugger	gdbserver
7.11.1-0ubuntu1~16.04	GNU Debugger (remote server)	geoip-database

Package	Version	Description
20160408-1	IP lookup command line tools that use the GeoIP library (country database)	gettext
0.19.7-2ubuntu3	GNU Internationalization utilities	gettext-base
0.19.7-2ubuntu3	GNU Internationalization utilities for the base system	ghostscript
9.18~dfsg~0-0ubuntu2.3	interpreter for the PostScript language and for PDF	gir1.2-glib-2.0
1.46.0-3ubuntu1	Introspection data for GLib	GObject
Gio and GModule	glib-networking	2.48.2-1~ubuntu16.04.1
network-related giomodules for GLib	glib-networking-common	2.48.2-1~ubuntu16.04.1
network-related giomodules for GLib - data files	glib-networking-services	2.48.2-1~ubuntu16.04.1
network-related giomodules for GLib - D-Bus services	gnupg	1.4.20-1ubuntu3.1
GNU privacy guard - a free PGP replacement	gpgv	1.4.20-1ubuntu3.1
GNU privacy guard - signature verification tool	grep	2.25-1~16.04.1
GNU grep	egrep and fgrep	groff-base
1.22.3-7	GNU troff text-formatting system (base system components)	grub-common
2.02~beta2-36ubuntu3.7	GRand Unified Bootloader (common files)	grub-efi
2.02~beta2-36ubuntu3.7	GRand Unified Bootloader	version 2 (dummy package)
grub-efi-amd64	2.02~beta2-36ubuntu3.7	GRand Unified Bootloader
version 2 (EFI-AMD64 version)	grub-efi-amd64-bin	2.02~beta2-36ubuntu3.7
GRand Unified Bootloader	version 2 (EFI-AMD64 binaries)	grub2-common
2.02~beta2-36ubuntu3.7	GRand Unified Bootloader (common files for version 2)	gsettings-desktop-schemas
3.18.1-1ubuntu1	GSettings desktop-wide schemas	gsfonts

Package	Version	Description
1:8.11+urwcyr1.0.7~pre44-4.2ubuntu1	Fonts for the Ghostscript interpreter(s)	guile-2.0-libs
2.0.11+1-10	Core Guile libraries	gzip
1.6-4ubuntu1	GNU compression utilities	hdparm
9.48+ds-1	tune hard disk parameters for high performance	hicolor-icon-theme
0.15-0ubuntu1	default fallback theme for FreeDesktop.org icon themes	hostname
3.16ubuntu2	utility to set/show the host name or domain name	htop
2.0.1-1ubuntu1	interactive processes viewer	humanity-icon-theme
0.6.10.1	Humanity Icon theme	ifupdown
0.8.10ubuntu1.2	high level tools to configure network interfaces	imagemagick
8:6.8.9.9-7ubuntu5.4	image manipulation programs -- binaries	imagemagick-6.q16
8:6.8.9.9-7ubuntu5.4	image manipulation programs -- quantum depth Q16	imagemagick-common
8:6.8.9.9-7ubuntu5.4	image manipulation programs -- infrastructure	info
6.1.0.dfsg.1-5	Standalone GNU Info documentation browser	init
1.29ubuntu3	System-V-like init utilities - metapackage	init-system-helpers
1.29ubuntu3	helper tools for all init systems	initramfs-tools
0.122ubuntu8.8	generic modular initramfs generator (automation)	initramfs-tools-bin
0.122ubuntu8.8	binaries used by initramfs-tools	initramfs-tools-core
0.122ubuntu8.8	generic modular initramfs generator (core tools)	initscripts
2.88dsf-59.3ubuntu2	scripts for initializing and shutting down the system	insserv

Package	Version	Description
1.14.0-5ubuntu3	boot sequence organizer using LSB init.d script dependency information	install-info
6.1.0.dfsg.1-5	Manage installed documentation in info format	installation-report
2.60ubuntu1	system installation report	intltool-debian
0.35.0+20060710.4	Help i18n of RFC822 compliant config files	iproute
1:4.3.0-1ubuntu3	transitional dummy package for iproute2	iproute2
4.3.0-1ubuntu3	networking and traffic control tools	iptables
1.6.0-2ubuntu3	administration tools for packet filtering and NAT	iputils-ping
3:20121221-5ubuntu2	Tools to test the reachability of network hosts	iputils-tracepath
3:20121221-5ubuntu2	Tools to trace the network path to a remote host	irqbalance
1.1.0-2ubuntu1	Daemon to balance interrupts for SMP systems	isc-dhcp-client
4.3.3-5ubuntu12.6	DHCP client for automatically obtaining an IP address	isc-dhcp-common
4.3.3-5ubuntu12.6	common files used by all of the isc- dhcp packages	iso-codes
3.65-1	ISO language	territory
currency	script codes and their translations	iw
3.17-1	tool for configuring Linux wireless devices	javascript-common
11	Base support for JavaScript library packages	kbd
1.15.5-1ubuntu5	Linux console font and keytable utilities	keyboard-configuration
1.108ubuntu15.3	system-wide keyboard preferences	keychain

Package	Version	Description
2.8.1-0.1	key manager for OpenSSH	keyutils
1.5.9-8ubuntu1	Linux Key Management Utilities	klibc-utils
2.0.4-8ubuntu1.16.04.3	small utilities built with klibc for early boot	kmod
22-1ubuntu4	tools for managing Linux kernel modules	krb5-locales
1.13.2+dfsg-5ubuntu2	Internationalization support for MIT Kerberos	landscape-common
16.03-0ubuntu2	The Landscape administration system client - Common files	language-pack-en
1:16.04+20161009	translation updates for language English	language-pack-en-base
1:16.04+20160627	translations for language English	language-selector-common
0.165.4	Language selector for Ubuntu	laptop-detect
0.13.7ubuntu2	attempt to detect a laptop	less
481-2.1ubuntu0.1	pager program similar to more	libaccountsservice0
0.6.40-2ubuntu11.3	query and manipulate user account information - shared libraries	libacl1
2.2.52-3	Access control list shared library	libaio1
0.3.110-2	Linux kernel AIO access library - shared library	libalgorithm-diff-perl
1.19.03-1	module to find differences between files	libalgorithm-diff-xs-perl
0.04-4build1	module to find differences between files (XS accelerated)	libalgorithm-merge-perl
0.08-3	Perl module for three-way merge of textual data	libapache2-mod-fcgid
1:2.3.9-1	FastCGI interface module for Apache 2	libapache2-mod-wsgi
4.3.0-1.1build1	Python WSGI adapter module for Apache	libapparmor-perl
2.10.95-0ubuntu2.5	AppArmor library Perl bindings	libapparmor1

Package	Version	Description
2.10.95-0ubuntu2.5	changehat AppArmor library	libapr1
1.5.2-3	Apache Portable Runtime Library	libaprutil1
1.5.4-1build1	Apache Portable Runtime Utility Library	libaprutil1-dbd-sqlite3
1.5.4-1build1	Apache Portable Runtime Utility Library - SQLite3 Driver	libaprutil1-ldap
1.5.4-1build1	Apache Portable Runtime Utility Library - LDAP Driver	libapt-inst1.5
1.0.1ubuntu2.17	deb package format runtime library	libapt-inst2.0
1.2.19	deb package format runtime library	libapt-pkg-perl
0.1.29build7	Perl interface to libapt-pkg	libapt-pkg4.12
1.0.1ubuntu2.17	package management runtime library	libapt-pkg5.0
1.2.19	package management runtime library	libarchive-zip-perl
1.56-2	Perl module for manipulation of ZIP archives	libarchive13
3.1.2-11ubuntu0.16.04.2	Multi-format archive and compression library (shared library)	libasan0
4.8.5-4ubuntu2	AddressSanitizer -- a fast memory error detector	libasan2
5.4.0-6ubuntu1~16.04.4	AddressSanitizer -- a fast memory error detector	libasn1-8-heimdal
1.7~git20150920+dfsg-4ubuntu1	Heimdal Kerberos - ASN.1 library	libasound2
1.1.0-0ubuntu1	shared library for ALSA applications	libasound2-data
1.1.0-0ubuntu1	Configuration files and profiles for ALSA drivers	libasprintf-dev
0.19.7-2ubuntu3	GNU Internationalization library development files	libasprintf0v5
0.19.7-2ubuntu3	GNU library to use fprintf and friends in C++	libasyncns0

Package	Version	Description
0.8-5build1	Asynchronous name service query library	libatk-bridge2.0-0
2.18.1-2ubuntu1	AT-SPI 2 toolkit bridge - shared library	libatk1.0-0
2.18.0-1	ATK accessibility toolkit	libatk1.0-data
2.18.0-1	Common files for the ATK accessibility toolkit	libatm1
1:2.5.1-1.5	shared library for ATM (Asynchronous Transfer Mode)	libatomic1
5.4.0-6ubuntu1~16.04.4	support library providing __atomic built-in functions	libatspi2.0-0
2.18.3-4ubuntu1	Assistive Technology Service Provider Interface - shared library	libattr1
1:2.4.47-2	Extended attribute shared library	libaudit-common
1:2.4.5-1ubuntu2	Dynamic library for security auditing - common files	libaudit1
1:2.4.5-1ubuntu2	Dynamic library for security auditing	libauthen-sasl-perl
2.1600-1	Authen::SASL - SASL Authentication framework	libavahi-client3
0.6.32~rc+dfsg-1ubuntu2	Avahi client library	libavahi-common-data
0.6.32~rc+dfsg-1ubuntu2	Avahi common data files	libavahi-common3
0.6.32~rc+dfsg-1ubuntu2	Avahi common library	libbabeltrace-ctf1
1.3.2-1	Common Trace Format (CTF) library	libbabeltrace1
1.3.2-1	Babeltrace conversion libraries	libbind9-140
1:9.10.3.dfsg.P4-8ubuntu1.5	BIND9 Shared Library used by BIND	libbind9-90
1:9.9.5.dfsg-3ubuntu0.13	BIND9 Shared Library used by BIND	libblkid1
2.27.1-6ubuntu3.2	block device ID library	libboost-filesystem1.58.0
1.58.0+dfsg-5ubuntu3.1	filesystem operations (portable paths	iteration over directories
etc) in C++	libboost-iostreams1.58.0	1.58.0+dfsg-5ubuntu3.1

Package	Version	Description
Boost.iostreams Library	libboost-system1.58.0	1.58.0+dfsg-5ubuntu3.1
Operating system (e.g. diagnostics support) library	libbsd0	0.8.2-1
utility functions from BSD systems - shared library	libbz2-1.0	1.0.6-8
high-quality block-sorting file compressor library - runtime	libc-bin	2.23-0ubuntu5
GNU C Library: Binaries	libc-dev-bin	2.23-0ubuntu7
GNU C Library: Development binaries	libc6	2.23-0ubuntu7
GNU C Library: Shared libraries	libc6-dbg	2.23-0ubuntu7
GNU C Library: detached debugging symbols	libc6-dev	2.23-0ubuntu7
GNU C Library: Development Libraries and Header Files	libcaca0	0.99.beta19-2build2~gcc5.2
colour ASCII art library	libcairo-gobject2	1.14.6-1
Cairo 2D vector graphics library (GObject library)	libcairo2	1.14.6-1
Cairo 2D vector graphics library	libcap-ng0	0.7.7-1
An alternate POSIX capabilities library	libcap2	1:2.24-12
POSIX 1003.1e capabilities (library)	libcap2-bin	1:2.24-12
POSIX 1003.1e capabilities (utilities)	libcc1-0	5.4.0-6ubuntu1~16.04.4
GCC cc1 plugin for GDB	libcgi-fast-perl	1:2.10-1
CGI subclass for work with FCGI	libcgi-pm-perl	4.26-1
module for Common Gateway Interface applications	libcgmanager0	0.39-2ubuntu5
Central cgroup manager daemon (client library)	libcilkrts5	5.4.0-6ubuntu1~16.04.4
Intel Cilk Plus language extensions (runtime)	libck-connector0	0.4.6-5

Package	Version	Description
ConsoleKit libraries	libclass-accessor-perl	0.34-1
Perl module that automatically generates accessors	libclass-isa-perl	0.36-5
report the search path for a class's ISA tree	libcloog-isl4	0.18.4-1
Chunky Loop Generator (runtime library)	libcloog-pplv4-1	0.16.1-6ubuntu3
Chunky Loop Generator (runtime library)	libcolord2	1.2.12-1ubuntu1
system service to manage device colour profiles -- runtime	libcolorhug2	1.2.12-1ubuntu1
library to access the ColorHug colourimeter -- runtime	libcomerr2	1.42.13-1ubuntu1
common error description library	libconfig-file-perl	1.50-3
Parses simple configuration files	libcroco3	0.6.11-1
Cascading Style Sheet (CSS) parsing and manipulation toolkit	libcryptsetup4	2:1.6.6-5ubuntu2
disk encryption support - shared library	libcups2	2.1.3-4
Common UNIX Printing System(tm) - Core library	libcupsfilters1	1.8.3-2ubuntu3.1
OpenPrinting CUPS Filters - Shared library	libcupsimage2	2.1.3-4
Common UNIX Printing System(tm) - Raster image library	libcurl3	7.47.0-1ubuntu2.2
easy-to-use client-side URL transfer library (OpenSSL flavour)	libcurl3-gnutls	7.47.0-1ubuntu2.2
easy-to-use client-side URL transfer library (GnuTLS flavour)	libcwidget3v5	0.5.17-4ubuntu2
high-level terminal interface library for C++ (runtime files)	libdatrie1	0.2.10-2
Double-array trie library	libdb5.1	5.1.29-7ubuntu1

Package	Version	Description
Berkeley v5.1 Database Libraries [runtime]	libdb5.3	5.3.28-11
Berkeley v5.3 Database Libraries [runtime]	libdbd-mysql-perl	4.033-1ubuntu0.1
Perl5 database interface to the MySQL database	libdbi-perl	1.634-1build1
Perl Database Interface (DBI)	libdbus-1-3	1.10.6-1ubuntu3.3
simple interprocess messaging system (library)	libdbus-glib-1-2	0.106-1
simple interprocess messaging system (GLib-based shared library)	libdconf1	0.24.0-2
simple configuration storage system - runtime library	libdebconfclient0	0.198ubuntu1
Debian Configuration Management System (C-implementation library)	libdevmapper-event1.02.1	2:1.02.110-1ubuntu10
Linux Kernel Device Mapper event support library	libdevmapper1.02.1	2:1.02.110-1ubuntu10
Linux Kernel Device Mapper userspace library	libdjvulibre-text	3.5.27.1-5
Linguistic support files for libdjvulibre	libdjvulibre21	3.5.27.1-5
Runtime support for the DjVu image format	libdns-export162	1:9.10.3.dfsg.P4-8ubuntu1.5
Exported DNS Shared Library	libdns100	1:9.9.5.dfsg-3ubuntu0.13
DNS Shared Library used by BIND	libdns162	1:9.10.3.dfsg.P4-8ubuntu1.5
DNS Shared Library used by BIND	libdpkg-perl	1.18.4ubuntu1.1
Dpkg perl modules	libdrm-amdgpu1	2.4.70-1~ubuntu16.04.1
Userspace interface to amdgpu-specific kernel DRM services -- runtime	libdrm-intel1	2.4.70-1~ubuntu16.04.1
Userspace interface to intel-specific kernel DRM services -- runtime	libdrm-nouveau2	2.4.70-1~ubuntu16.04.1

Package	Version	Description
Userspace interface to nouveau-specific kernel DRM services -- runtime	libdrm-radeon1	2.4.70-1~ubuntu16.04.1
Userspace interface to radeon-specific kernel DRM services -- runtime	libdrm2	2.4.70-1~ubuntu16.04.1
Userspace interface to kernel DRM services -- runtime	libedit2	3.1-20150325-1ubuntu2
BSD editline and history libraries	libedit2	0.23-2
Library to manage UEFI variables	libefivar0	12.0.6-0ubuntu0.16.04.1
free implementation of the EGL API -- runtime	libelf1	0.165-3ubuntu1
library to read and write ELF files	libencode-locale-perl	1.05-1
utility to determine the locale encoding	libepoxy0	1.3.1-1
OpenGL function pointer management library	libestr0	0.1.10-1
Helper functions for handling strings (lib)	libevdev2	1.4.6+dfsg-1
wrapper library for evdev devices	libevent-2.0-5	2.0.21-stable-2
Asynchronous event notification library	libevent-core-2.0-5	2.0.21-stable-2
Asynchronous event notification library (core)	libexif12	0.6.21-2
library to parse EXIF files	libexpat1	2.1.0-7ubuntu0.16.04.2
XML parsing C library - runtime library	libexpat1-dev	2.1.0-7ubuntu0.16.04.2
XML parsing C library - development kit	libexporter-tiny-perl	0.042-1
tiny exporter similar to Sub::Exporter	libfakeroot	1.20.2-1ubuntu1
tool for simulating superuser privileges - shared libraries	libfcgi-perl	0.77-1build1

Package	Version	Description
helper module for FastCGI	libfdisk1	2.27.1-6ubuntu3.2
fdisk partitioning library	libffi6	3.2.1-4
Foreign Function Interface library runtime	libfftw3-double3	3.3.4-2ubuntu1
Library for computing Fast Fourier Transforms - Double precision	libfile-basedir-perl	0.07-1
Perl module to use the freedesktop basedir specification	libfile-copy-recursive-perl	0.38-1
Perl extension for recursively copying files and directories	libfile-desktopentry-perl	0.22-1
Perl module to handle freedesktop .desktop files	libfile-fcntllock-perl	0.22-3
Perl module for file locking with fcntl(2)	libfile-listing-perl	6.04-1
module to parse directory listings	libfile-mimeinfo-perl	0.27-1
Perl module to determine file types	libfile-stripnondeterminism-perl	0.015-1
Perl module for stripping non-determinism from files	libflac8	1.3.1-4
Free Lossless Audio Codec - runtime C library	libfont-afm-perl	1.20-1
Font::AFM - Interface to Adobe Font Metrics files	libfontconfig1	2.11.94-0ubuntu1.1
generic font configuration library - runtime	libfontenc1	1:1.1.3-1
X11 font encoding library	libfreetype6	2.6.1-0.1ubuntu2
FreeType 2 font engine	shared library files	libfribidi0
0.19.7-1	Free Implementation of the Unicode BiDi algorithm	libfuse2
2.9.4-1ubuntu3.1	Filesystem in Userspace (library)	libgbm1
12.0.6-0ubuntu0.16.04.1	generic buffer management API -- runtime	libgc1c2

Package	Version	Description
1:7.4.2-7.3ubuntu0.1	conservative garbage collector for C and C++	libgcc-4.7-dev
4.7.4-3ubuntu12	GCC support library (development files)	libgcc-4.8-dev
4.8.5-4ubuntu2	GCC support library (development files)	libgcc-5-dev
5.4.0-6ubuntu1~16.04.4	GCC support library (development files)	libgcc1
1:6.0.1-0ubuntu1	GCC support library	libgcj-common
1:4.9.3-9ubuntu1	Java runtime library (common files)	libgcj16
5.4.0-6ubuntu1~16.04.4	Java runtime library for use with gcj	libgcrypt11
1.5.3-2ubuntu4.4	LGPL Crypto library - runtime library	libgcrypt20
1.6.5-2ubuntu0.2	LGPL Crypto library - runtime library	libgd3
2.1.1-4ubuntu0.16.04.6	GD Graphics Library	libgdbm3
1.8.3-13.1	GNU dbm database routines (runtime version)	libgdk-pixbuf2.0-0
2.32.2-1ubuntu1.2	GDK Pixbuf library	libgdk-pixbuf2.0-common
2.32.2-1ubuntu1.2	GDK Pixbuf library - data files	libgeoip1
1.6.9-1	non-DNS IP-to-country resolver library	libgettextpo-dev
0.19.7-2ubuntu3	GNU Internationalization library development files	libgettextpo0
0.19.7-2ubuntu3	GNU Internationalization library	libgirara-gtk3-2
0.2.5-1	library for minimalistic user interfaces (shared libraries	GTK+ 3)
libgirepository-1.0-1	1.46.0-3ubuntu1	Library for handling GObject introspection data (runtime library)
libgl1-mesa-dri	12.0.6-0ubuntu0.16.04.1	free implementation of the OpenGL API -- DRI modules

Package	Version	Description
libgl1-mesa-glx	12.0.6-0ubuntu0.16.04.1	free implementation of the OpenGL API -- GLX runtime
libglapi-mesa	12.0.6-0ubuntu0.16.04.1	free implementation of the GL API -- shared library
libgl2.0-0	2.48.2-0ubuntu1	GLib library of C routines
libgmp10	2:6.1.0+dfsg-2	Multiprecision arithmetic library
libgmpxxv4-4	2:6.1.0+dfsg-2ubuntu5	Multiprecision arithmetic library (C++ bindings
GCC 4.x compatible)	libgnutls-openssl27	3.4.10-4ubuntu1.2
GNU TLS library - OpenSSL wrapper	libgnutls26	2.12.23-12ubuntu2.6
GNU TLS library - runtime library	libgnutls30	3.4.10-4ubuntu1.2
GNU TLS library - main runtime library	libgomp1	5.4.0-6ubuntu1~16.04.4
GCC OpenMP (GOMP) support library	libgpg-error0	1.21-2ubuntu1
library for common error values and messages in GnuPG components	libgphoto2-6	2.5.9-3
gphoto2 digital camera library	libgphoto2-l10n	2.5.9-3
gphoto2 digital camera library - localized messages	libgphoto2-port12	2.5.9-3
gphoto2 digital camera port library	libgpm2	1.20.4-6.1
General Purpose Mouse - shared library	libgraphite2-3	1.3.6-1ubuntu1
Font rendering engine for Complex Scripts -- library	libgs9	9.18~dfsg~0-0ubuntu2.3
interpreter for the PostScript language and for PDF - Library	libgs9-common	9.18~dfsg~0-0ubuntu2.3
interpreter for the PostScript language and for PDF - common files	libgsasl7	1.8.0-8ubuntu2

Package	Version	Description
GNU SASL library	libgssapi-krb5-2	1.13.2+dfsg-5ubuntu2
MIT Kerberos runtime libraries - krb5 GSS-API Mechanism	libgssapi3-heimdal	1.7~git20150920+dfsg-4ubuntu1
Heimdal Kerberos - GSSAPI support library	libgtk-3-0	3.18.9-1ubuntu3.1
GTK+ graphical user interface library	libgtk-3-bin	3.18.9-1ubuntu3.1
programs for the GTK+ graphical user interface library	libgtk-3-common	3.18.9-1ubuntu3.1
common files for the GTK+ graphical user interface library	libgudev-1.0-0	1:230-2
GObject-based wrapper library for libudev	libgusb2	0.2.9-0ubuntu1
GLib wrapper around libusb1	libharfbuzz0b	1.0.1-1ubuntu0.1
OpenType text shaping engine (shared library)	libhcrypto4-heimdal	1.7~git20150920+dfsg-4ubuntu1
Heimdal Kerberos - crypto library	libheimbase1-heimdal	1.7~git20150920+dfsg-4ubuntu1
Heimdal Kerberos - Base library	libheimntlm0-heimdal	1.7~git20150920+dfsg-4ubuntu1
Heimdal Kerberos - NTLM support library	libhogweed4	3.2-1ubuntu0.16.04.1
low level cryptographic library (public-key cryptos)	libhtml-form-perl	6.03-1
module that represents an HTML form element	libhtml-format-perl	2.11-2
module for transforming HTML into various formats	libhtml-parser-perl	3.72-1
collection of modules that parse HTML text documents	libhtml-tagset-perl	3.20-2
Data tables pertaining to HTML	libhtml-template-perl	2.95-2
module for using HTML templates with Perl	libhtml-tree-perl	5.03-2

Package	Version	Description
Perl module to represent and create HTML syntax trees	libhttp-cookies-perl	6.01-1
HTTP cookie jars	libhttp-daemon-perl	6.01-1
simple http server class	libhttp-date-perl	6.02-1
module of date conversion routines	libhttp-message-perl	6.11-1
perl interface to HTTP style messages	libhttp-negotiate-perl	6.00-2
implementation of content negotiation	libhx509-5-heimdal	1.7~git20150920+dfsg-4ubuntu1
Heimdal Kerberos - X509 support library	libice6	2:1.0.9-1
X11 Inter-Client Exchange library	libicu55	55.1-7
International Components for Unicode	libidn11	1.32-3ubuntu1.1
GNU Libidn library	implementation of IETF IDN specifications	libieee1284-3
0.2.11-12	cross-platform library for parallel port access	libijs-0.35
0.35-12	IJS raster image transport protocol: shared library	libilmbase12
2.2.0-11ubuntu2	several utility libraries from ILM used by OpenEXR	libinput10
1.2.3-1ubuntu1	input device management and event handling library - shared library	libio-html-perl
1.001-1	open an HTML file with automatic charset detection	libio-socket-ssl-perl
2.024-1	Perl module implementing object oriented interface to SSL sockets	libio-string-perl
1.08-3	Emulate IO::File interface for in-core strings	libipc-system-simple-perl

Package	Version	Description
1.25-3	Perl module to run commands simply	with detailed diagnostics
libisc-export160	1:9.10.3.dfsg.P4-8ubuntu1.5	Exported ISC Shared Library
libisc160	1:9.10.3.dfsg.P4-8ubuntu1.5	ISC Shared Library used by BIND
libisc95	1:9.9.5.dfsg-3ubuntu0.13	ISC Shared Library used by BIND
libisccc140	1:9.10.3.dfsg.P4-8ubuntu1.5	Command Channel Library used by BIND
libisccc90	1:9.9.5.dfsg-3ubuntu0.13	Command Channel Library used by BIND
libiscfg140	1:9.10.3.dfsg.P4-8ubuntu1.5	Config File Handling Library used by BIND
libiscfg90	1:9.9.5.dfsg-3ubuntu0.13	Config File Handling Library used by BIND
libisl15	0.16.1-1	manipulating sets and relations of integer points bounded by linear constraints
libitm1	5.4.0-6ubuntu1~16.04.4	GNU Transactional Memory Library
libiw30	30~pre9-8ubuntu1	Wireless tools - library
libjbig0	2.1-3.1	JBIGkit libraries
libjbig2dec0	0.12+20150918-1	JBIG2 decoder library - shared libraries
libjpeg-turbo8	1.4.2-0ubuntu3	IJG JPEG compliant runtime library.
libjpeg8	8c-2ubuntu8	Independent JPEG Group's JPEG runtime library (dependency package)
libjs-excanvas	0.r3-4	HTML5 Canvas for Internet Explorer
libjson-c2	0.11-4ubuntu2	JSON manipulation library - shared library
libjson-glib-1.0-0	1.1.2-0ubuntu1	GLib JSON manipulation library
libjson-glib-1.0-common	1.1.2-0ubuntu1	GLib JSON manipulation library (common files)

Package	Version	Description
libjson0	0.11-4ubuntu2	JSON manipulation library (transitional package)
libk5crypto3	1.13.2+dfsg-5ubuntu2	MIT Kerberos runtime libraries - Crypto Library
libkeyutils1	1.5.9-8ubuntu1	Linux Key Management Utilities (library)
libklibc	2.0.4-8ubuntu1.16.04.3	minimal libc subset for use with initramfs
libkmod2	22-1ubuntu4	libkmod shared library
libkrb5-26-heimdal	1.7~git20150920+dfsg-4ubuntu1	Heimdal Kerberos - libraries
libkrb5-3	1.13.2+dfsg-5ubuntu2	MIT Kerberos runtime libraries
libkrb5support0	1.13.2+dfsg-5ubuntu2	MIT Kerberos runtime libraries - Support library
libkyotocabinet16v5	1.2.76-4.1	Straightforward implementation of DBM - shared library
liblcms2-2	2.6-3ubuntu2	Little CMS 2 color management library
libldap-2.4-2	2.4.42+dfsg-2ubuntu3.1	OpenLDAP libraries
libldb1	2:1.1.24-1ubuntu3	LDAP-like embedded database - shared library
liblpt5	1.73-1	image processing library
liblist-moreutils-perl	0.413-1build1	Perl module with additional list functions not found in List::Util
libllvm3.8	1:3.8-2ubuntu4	Modular compiler and toolchain technologies
runtime library	liblocale-gettext-perl	1.07-1build1
module using libc functions for internationalization in Perl	liblockfile-bin	1.09-6ubuntu1
support binaries for and cli utilities based on liblockfile	liblockfile1	1.09-6ubuntu1
NFS-safe locking library	liblqr-1-0	0.4.2-2

Package	Version	Description
converts plain array images into multi-size representation	liblsan0	5.4.0-6ubuntu1~16.04.4
LeakSanitizer -- a memory leak detector (runtime)	libltdl7	2.4.6-0.1
System independent dlopen wrapper for GNU libtool	liblua5.1-0	5.1.5-8ubuntu1
Shared library for the Lua interpreter version 5.1	liblvm2app2.2	2.02.133-1ubuntu10
LVM2 application library	liblvm2cmd2.02	2.02.133-1ubuntu10
LVM2 command library	liblwp-mediatypes-perl	6.02-1
module to guess media type for a file or a URL	liblwp-protocol-https-perl	6.06-2
HTTPS driver for LWP::UserAgent	liblwres141	1:9.10.3.dfsg.P4-8ubuntu1.5
Lightweight Resolver Library used by BIND	liblwres90	1:9.9.5.dfsg-3ubuntu0.13
Lightweight Resolver Library used by BIND	liblz4-1	0.0~r131-2ubuntu2
Fast LZ compression algorithm library - runtime	liblzma5	5.1.1alpha+20120614-2ubuntu2
XZ-format compression library	liblz02-2	2.08-1.2
data compression library	libmagic1	1:5.25-2ubuntu1
File type determination library using magic numbers	libmagickcore-6.q16-2	8:6.8.9.9-7ubuntu5.4
low-level image manipulation library -- quantum depth Q16	libmagickcore-6.q16-2-extra	8:6.8.9.9-7ubuntu5.4
low-level image manipulation library - extra codecs (Q16)	libmagickwand-6.q16-2	8:6.8.9.9-7ubuntu5.4
image manipulation library	libmail-sendmail-perl	0.79.16-1
Send email from a perl script	libmailtools-perl	2.13-1
Manipulate email in perl programs	libmailutils4	1:2.99.99-1ubuntu2
GNU Mail abstraction library	libmirclient9	0.21.0+16.04.20160330-0ubuntu1

Package	Version	Description
Display server for Ubuntu - client library	libmircommon5	0.21.0+16.04.20160330-0ubuntu1
Display server for Ubuntu - shared library	libmirprotobuf3	0.21.0+16.04.20160330-0ubuntu1
Display server for Ubuntu - RPC definitions	libmn10	1.0.3-5
minimalistic Netlink communication library	libmount1	2.27.1-6ubuntu3.2
device mounting library	libmpc3	1.0.3-1
multiple precision complex floating-point library	libmpdec2	2.4.2-1
library for decimal floating point arithmetic (runtime library)	libmpfr4	3.1.4-1
multiple precision floating-point computation	libmpx0	5.4.0-6ubuntu1~16.04.4
Intel memory protection extensions (runtime)	libmtdev1	1.1.5-1ubuntu2
Multitouch Protocol Translation Library - shared library	libmysqlclient18	5.5.54-0ubuntu0.14.04.1
MySQL database client library	libmysqlclient20	5.7.17-0ubuntu0.16.04.1
MySQL database client library	libncurses5	6.0+20160213-1ubuntu1
shared libraries for terminal handling	libncursesw5	6.0+20160213-1ubuntu1
shared libraries for terminal handling (wide character support)	libnet-daemon-perl	0.48-1
Perl module for building portable Perl daemons easily	libnet-dbus-perl	1.1.0-3build1
Perl extension for the DBus bindings	libnet-http-perl	6.09-1
module providing low-level HTTP connection client	libnet-smtp-ssl-perl	1.03-1
Perl module providing SSL support to Net::SMTP	libnet-ssleay-perl	1.72-1build1

Package	Version	Description
Perl module for Secure Sockets Layer (SSL)	libnetpbm10	2:10.0-15.3
Graphics conversion tools shared libraries	libnettle6	3.2-1ubuntu0.16.04.1
low level cryptographic library (symmetric and one-way cryptos)	libnewt0.52	0.52.18-1ubuntu2
Not Erik's Windowing Toolkit - text mode windowing with slang	libnfnlink0	1.0.1-3
Netfilter netlink library	libnfsidmap2	0.25-5
NFS idmapping library	libnih-dbus1	1.0.3-4.3ubuntu1
NIH D-Bus Bindings Library	libnih1	1.0.3-4.3ubuntu1
NIH Utility Library	libnl-3-200	3.2.27-1
library for dealing with netlink sockets	libnl-genl-3-200	3.2.27-1
library for dealing with netlink sockets - generic netlink	libnotify4	0.7.6-2svn1
sends desktop notifications to a notification daemon	libnss-winbind	2:4.3.11+dfsg-0ubuntu0.16.04.3
Samba nameservice integration plugins	libntlm0	1.4-7
NTLM authentication library	libnuma1	2.0.11-1ubuntu1
Libraries for controlling NUMA policy	libogg0	1.3.2-1
Ogg bitstream library	libopenexr22	2.2.0-10ubuntu2
runtime files for the OpenEXR image library	libopenjp2-7	2.1.0-2.1ubuntu0.1
JPEG 2000 image compression/decompression library	libp11-kit0	0.23.2-5~ubuntu16.04.1
library for loading and coordinating access to PKCS#11 modules - runtime	libpam-cap	1:2.24-12

Package	Version	Description
POSIX 1003.1e capabilities (PAM module)	libpam-ck-connector	0.4.6-5
ConsoleKit PAM module	libpam-modules	1.1.8-3.2ubuntu2
Pluggable Authentication Modules for PAM	libpam-modules-bin	1.1.8-3.2ubuntu2
Pluggable Authentication Modules for PAM - helper binaries	libpam-runtime	1.1.8-3.2ubuntu2
Runtime support for the PAM library	libpam-systemd	229-4ubuntu16
system and service manager - PAM module	libpam-winbind	2:4.3.11+dfsg-0ubuntu0.16.04.3
Windows domain authentication integration plugin	libpam0g	1.1.8-3.2ubuntu2
Pluggable Authentication Modules library	libpango-1.0-0	1.38.1-1
Layout and rendering of internationalized text	libpangocairo-1.0-0	1.38.1-1
Layout and rendering of internationalized text	libpangoft2-1.0-0	1.38.1-1
Layout and rendering of internationalized text	libpaper-utils	1.1.24+nmu4ubuntu1
library for handling paper characteristics (utilities)	libpaper1	1.1.24+nmu4ubuntu1
library for handling paper characteristics	libparse-debianchangelog-perl	1.2.0-8
parse Debian changelogs and output them in other formats	libparted0debian1	2.3-19ubuntu1.14.04.1
disk partition manipulator - shared library	libparted2	3.2-15
disk partition manipulator - shared library	libpcap0.8	1.7.4-2
system interface for user-level packet capture	libpci3	1:3.3.1-1.1ubuntu1

Package	Version	Description
Linux PCI Utilities (shared library)	libpciaccess0	0.13.4-1
Generic PCI access library for X	libpcre16-3	2:8.38-3.1
Perl 5 Compatible Regular Expression Library - 16 bit runtime files	libpcre3	2:8.38-3.1
Perl 5 Compatible Regular Expression Library - runtime files	libpcre3-lite1	1.8.14-1ubuntu1.16.04.1
Middleware to access a smart card using PC/SC (library)	libperl5.22	5.22.1-9
shared Perl library	libpipeline1	1.4.1-2
pipeline manipulation library	libpixman-1-0	0.33.6-1
pixel-manipulation library for X and cairo	libpng16-1	0.2020-2
Perl extensions for writing PIRPC servers and clients	libplymouth2	0.8.8-0ubuntu17.1
graphical boot animation and logger - shared libraries	libplymouth4	0.9.2-3ubuntu13.1
graphical boot animation and logger - shared libraries	libpng12-0	1.2.54-1ubuntu1
PNG library - runtime	libpolkit-agent-1-0	0.105-14.1
PolicyKit Authentication Agent API	libpolkit-backend-1-0	0.105-14.1
PolicyKit backend API	libpolkit-gobject-1-0	0.105-14.1
PolicyKit Authorization API	libpoppler-glib8	0.41.0-0ubuntu1.1
PDF rendering library (GLib-based shared library)	libpoppler58	0.41.0-0ubuntu1.1
PDF rendering library	libpopt0	1.16-10
lib for parsing cmdline parameters	libpplv4-13	1:1.1-7ubuntu3
Parma Polyhedra Library (runtime library)	libpplv4-c4	1:1.1-7ubuntu3
Parma Polyhedra Library (C interface)	libprocps4	2:3.3.10-4ubuntu2.3

Package	Version	Description
library for accessing process information from /proc	libprotobuf-lite9v5	2.6.1-1.3
protocol buffers C++ library (lite version)	libproxy1v5	0.4.11-5ubuntu1
automatic proxy configuration management library (shared)	libpulse0	1:8.0-0ubuntu3.2
PulseAudio client libraries	libpython-all-dev	2.7.11-1
package depending on all supported Python development packages	libpython-dev	2.7.11-1
header files and a static library for Python (default)	libpython-stdlib	2.7.11-1
interactive high-level object-oriented language (default python version)	libpython2.7	2.7.12-1ubuntu0~16.04.1
Shared Python runtime library (version 2.7)	libpython2.7-dbg	2.7.12-1ubuntu0~16.04.1
Debug Build of the Python Interpreter (version 2.7)	libpython2.7-dev	2.7.12-1ubuntu0~16.04.1
Header files and a static library for Python (v2.7)	libpython2.7-minimal	2.7.12-1ubuntu0~16.04.1
Minimal subset of the Python language (version 2.7)	libpython2.7-stdlib	2.7.12-1ubuntu0~16.04.1
Interactive high-level object-oriented language (standard library	version 2.7)	libpython3-stdlib
3.5.1-3	interactive high-level object-oriented language (default python3 version)	libpython3.5
3.5.2-2ubuntu0~16.04.1	Shared Python runtime library (version 3.5)	libpython3.5-minimal
3.5.2-2ubuntu0~16.04.1	Minimal subset of the Python language (version 3.5)	libpython3.5-stdlib
3.5.2-2ubuntu0~16.04.1	Interactive high-level object-oriented language (standard library	version 3.5)

Package	Version	Description
libqt5core5a	5.5.1+dfsg-16ubuntu7.2	Qt 5 core module
libqt5dbus5	5.5.1+dfsg-16ubuntu7.2	Qt 5 D-Bus module
libqt5gui5	5.5.1+dfsg-16ubuntu7.2	Qt 5 GUI module
libqt5network5	5.5.1+dfsg-16ubuntu7.2	Qt 5 network module
libqt5opengl5	5.5.1+dfsg-16ubuntu7.2	Qt 5 OpenGL module
libqt5printsupport5	5.5.1+dfsg-16ubuntu7.2	Qt 5 print support module
libqt5svg5	5.5.1-2build1	Qt 5 SVG module
libqt5widgets5	5.5.1+dfsg-16ubuntu7.2	Qt 5 widgets module
libqt5x11extras5	5.5.1-3build1	Qt 5 X11 extras
libquadmath0	5.4.0-6ubuntu1~16.04.4	GCC Quad-Precision Math Library
libreadline5	5.2+dfsg-3build1	GNU readline and history libraries
run-time libraries	libreadline6	6.3-8ubuntu2
GNU readline and history libraries	run-time libraries	libregex-perl
0.36-1	Perl module to merge several regular expressions	librest-0.7-0
0.7.93-1	REST service access library	libroken18-heimdal
1.7~git20150920+dfsg-4ubuntu1	Heimdal Kerberos - roken support library	librsync2-2
2.40.13-3	SAX-based renderer library for SVG files (runtime)	librsync2-common
2.40.13-3	SAX-based renderer library for SVG files (extra runtime)	librtmp0
2.4+20121230.gitdf6c518-1	toolkit for RTMP streams (shared library)	librtmp1
2.4+20151223.gitfa8646d-1build1	toolkit for RTMP streams (shared library)	libsane
1.0.25+git20150528-1ubuntu2	API library for scanners	libsane-common
1.0.25+git20150528-1ubuntu2	API library for scanners -- documentation and support files	libsasl2-2

Package	Version	Description
2.1.26.dfsg1-14build1	Cyrus SASL - authentication abstraction library	libsasl2-modules
2.1.26.dfsg1-14build1	Cyrus SASL - pluggable authentication modules	libsasl2-modules-db
2.1.26.dfsg1-14build1	Cyrus SASL - pluggable authentication modules (DB)	libsdl-ttf2.0-0
2.0.11-3	TrueType Font library for Simple DirectMedia Layer 1.2	libraries
libsdl1.2debian	1.2.15+dfsg1-3	Simple DirectMedia Layer
libseccomp2	2.2.3-3ubuntu3	high level interface to Linux seccomp filter
libselinux1	2.4-3build2	SELinux runtime shared libraries
libsemanage-common	2.3-1build3	Common files for SELinux policy management libraries
libsemanage1	2.3-1build3	SELinux policy management library
libsensors4	1:3.4.0-2	library to read temperature/voltage/fan sensors
libsepol1	2.4-2	SELinux library for manipulating binary security policies
libsigc++-2.0-0v5	2.6.2-1	type-safe Signal Framework for C++ - runtime
libsigsegv2	2.10-4	Library for handling page faults in a portable way
libslang2	2.3.0-2ubuntu1	S-Lang programming library - runtime version
libsm6	2:1.2.2-1	X11 Session Management library
libsmartcols1	2.27.1-6ubuntu3.2	smart column output alignment library
libsmbclient	2:4.3.11+dfsg-0ubuntu0.16.04.3	shared library for communication with SMB/CIFS servers
libsndfile1	1.0.25-10	Library for reading/writing audio files

Package	Version	Description
libsoup-gnome2.4-1	2.52.2-1ubuntu0.1	HTTP library implementation in C -- GNOME support library
libsoup2.4-1	2.52.2-1ubuntu0.1	HTTP library implementation in C -- Shared library
libsqlite3-0	3.11.0-1ubuntu1	SQLite 3 shared library
libss2	1.42.13-1ubuntu1	command-line interface parsing library
libssl1.0.0	1.0.2g-1ubuntu4.6	Secure Sockets Layer toolkit - shared libraries
libstdc++-5-dev	5.4.0-6ubuntu1~16.04.4	GNU Standard C++ Library v3 (development files)
libstdc++6	5.4.0-6ubuntu1~16.04.4	GNU Standard C++ Library v3
libsub-name-perl	0.14-1build1	module for assigning a new name to referenced sub
libswitch-perl	2.17-2	switch statement for Perl
libsyntax1	2015.20160222.37495-1	TeX Live: SyncTeX parser library
libsys-hostname-long-perl	1.5-1	Figure out the long (fully-qualified) hostname
libsystemd0	229-4ubuntu16	systemd utility library
libtalloc2	2.1.5-2	hierarchical pool based memory allocator
libtasn1-6	4.7-3ubuntu0.16.04.1	Manage ASN.1 structures (runtime)
libtcl8.6	8.6.5+dfsg-2	Tcl (the Tool Command Language) v8.6 - run-time library files
libtdb1	1.3.8-2	Trivial Database - shared library
libterm-readkey-perl	2.33-1build1	perl module for simple terminal control
libtesseract3	3.04.01-4	Tesseract OCR library
libtevent0	0.9.28-0ubuntu0.16.04.1	talloc-based event loop library - shared library
libtext-charwidth-perl	0.04-7build5	get display widths of characters on the terminal

Package	Version	Description
libtext-iconv-perl	1.7-5build4	converts between character sets in Perl
libtext-wrapi18n-perl	0.06-7.1	internationalized substitute of Text::Wrap
libthai-data	0.1.24-2	Data files for Thai language support library
libthai0	0.1.24-2	Thai language support library
libtie-ixhash-perl	1.23-2	Perl module to order associative arrays
libtiff5	4.0.6-1ubuntu0.1	Tag Image File Format (TIFF) library
libtimedate-perl	2.3000-2	collection of modules to manipulate date/time information
libtinfo5	6.0+20160213-1ubuntu1	shared low-level terminfo library for terminal handling
libtirpc1	0.2.5-1	transport-independent RPC library
libtk8.6	8.6.5-1	Tk toolkit for Tcl and X11 v8.6 - runtime files
libtsan0	5.4.0-6ubuntu1~16.04.4	ThreadSanitizer -- a Valgrind-based detector of data races (runtime)
libtxc-dxtn-s2tc0	0~git20131104-1.1	Texture compression library for Mesa
libubsan0	5.4.0-6ubuntu1~16.04.4	UBSan -- undefined behaviour sanitizer (runtime)
libudev1	229-4ubuntu16	libudev shared library
libunistring0	0.9.3-5.2ubuntu1	Unicode string library for C
liburi-perl	1.71-1	module to manipulate and access URI strings
libusb-0.1-4	2:0.1.12-28	userspace USB programming library
libusb-1.0-0	2:1.0.20-1	userspace USB programming library
libustr-1.0-1	1.0.4-5	Micro string library: shared library

Package	Version	Description
libutempter0	1.1.6-3	privileged helper for utmp/wtmp updates (runtime)
libuuid1	2.27.1-6ubuntu3.2	Universally Unique ID library
libv4l-0	1.10.0-1	Collection of video4linux support libraries
libv4lconvert0	1.10.0-1	Video4linux frame format conversion library
libvorbis0a	1.3.5-3	decoder library for Vorbis General Audio Compression Codec
libvorbisenc2	1.3.5-3	encoder library for Vorbis General Audio Compression Codec
libvpx3	1.5.0-2ubuntu1	VP8 and VP9 video codec (shared library)
libwacom-bin	0.18-1	Wacom model feature query library -- binaries
libwacom-common	0.18-1	Wacom model feature query library (common files)
libwacom2	0.18-1	Wacom model feature query library
libwayland-client0	1.9.0-1	wayland compositor infrastructure - client library
libwayland-cursor0	1.9.0-1	wayland compositor infrastructure - cursor library
libwayland-egl1-mesa	12.0.6-0ubuntu0.16.04.1	implementation of the Wayland EGL platform -- runtime
libwayland-server0	1.9.0-1	wayland compositor infrastructure - server library
libwbclient0	2:4.3.11+dfsg-0ubuntu0.16.04.3	Samba winbind client library
libwebp5	0.4.4-1	Lossy compression of digital photographic images.
libwebpmux1	0.4.4-1	Lossy compression of digital photographic images.

Package	Version	Description
libwhoopsie0	0.2.52.2	Ubuntu error tracker submission - shared library
libwind0-heimdal	1.7~git20150920+dfsg-4ubuntu1	Heimdal Kerberos - stringprep implementation
libwmf0.2-7	0.2.8.4-10.5ubuntu1	Windows metafile conversion library
libwrap0	7.6.q-25	Wietse Venema's TCP wrappers library
libwww-perl	6.15-1	simple and consistent interface to the world-wide web
libwww-robotrules-perl	6.01-1	database of robots.txt-derived permissions
libx11-6	2:1.6.3-1ubuntu2	X11 client-side library
libx11-data	2:1.6.3-1ubuntu2	X11 client-side library
libx11-protocol-perl	0.56-7	Perl module for the X Window System Protocol
version 11	libx11-xcb1	2:1.6.3-1ubuntu2
Xlib/XCB interface library	libxapian-1.3-5	1.3.4-0ubuntu6
Search engine library	libxapian22v5	1.2.22-2
Search engine library	libxau6	1:1.0.8-1
X11 authorisation library	libxaw7	2:1.0.13-1
X11 Athena Widget library	libxcb-dri2-0	1.11.1-1ubuntu1
X C Binding	dri2 extension	libxcb-dri3-0
1.11.1-1ubuntu1	X C Binding	dri3 extension
libxcb-glx0	1.11.1-1ubuntu1	X C Binding
glx extension	libxcb-icccm4	0.4.1-1ubuntu1
utility libraries for X C Binding -- icccm	libxcb-image0	0.4.0-1build1
utility libraries for X C Binding -- image	libxcb-keysyms1	0.4.0-1

Package	Version	Description
utility libraries for X C Binding -- keysyms	libxcb-present0	1.11.1-1ubuntu1
X C Binding	present extension	libxcb-randr0
1.11.1-1ubuntu1	X C Binding	randr extension
libxcb-render-util0	0.3.9-1	utility libraries for X C Binding -- render-util
libxcb-render0	1.11.1-1ubuntu1	X C Binding
render extension	libxcb-shape0	1.11.1-1ubuntu1
X C Binding	shape extension	libxcb-shm0
1.11.1-1ubuntu1	X C Binding	shm extension
libxcb-sync1	1.11.1-1ubuntu1	X C Binding
sync extension	libxcb-util1	0.4.0-0ubuntu3
utility libraries for X C Binding -- atom	aux and event	libxcb-xfixes0
1.11.1-1ubuntu1	X C Binding	xfixes extension
libxcb-xkb1	1.11.1-1ubuntu1	X C Binding
XKEYBOARD extension	libxcb1	1.11.1-1ubuntu1
X C Binding	libxcomposite1	1:0.4.4-1
X11 Composite extension library	libxcursor1	1:1.1.14-1
X cursor management library	libxdamage1	1:1.1.4-2
X11 damaged region extension library	libxdmcp6	1:1.1.2-1.1
X11 Display Manager Control Protocol library	libxext6	2:1.3.3-1
X11 miscellaneous extension library	libxfixes3	1:5.0.1-2
X11 miscellaneous 'fixes' extension library	libxft2	2.3.2-1
FreeType-based font drawing library for X	libxi6	2:1.7.6-1

Package	Version	Description
X11 Input extension library	libxinerama1	2:1.1.3-1
X11 Xinerama extension library	libxkbcommon-x11-0	0.5.0-1ubuntu2
library to create keymaps with the XKB X11 protocol	libxkbcommon0	0.5.0-1ubuntu2
library interface to the XKB compiler - shared library	libxml-parser-perl	2.44-1build1
Perl module for parsing XML files	libxml-twig-perl	1:3.48-1
Perl module for processing huge XML documents in tree mode	libxml-xpathengine-perl	0.13-1
re-usable XPath engine for DOM-like trees	libxml2	2.9.3+dfsg1-1ubuntu0.1
GNOME XML library	libxmu6	2:1.1.2-2
X11 miscellaneous utility library	libxmuu1	2:1.1.2-2
X11 miscellaneous micro-utility library	libxpm4	1:3.5.11-1ubuntu0.16.04.1
X11 pixmap library	libxrandr2	2:1.5.0-1
X11 RandR extension library	libxrender1	1:0.9.9-0ubuntu1
X Rendering Extension client library	libxshmfence1	1.2-1
X shared memory fences - shared library	libxslt1.1	1.1.28-2.1
XSLT 1.0 processing library - runtime library	libxss1	1:1.2.2-1
X11 Screen Saver extension library	libxt6	1:1.1.5-0ubuntu1
X11 toolkit intrinsics library	libxtables11	1.6.0-2ubuntu3
netfilter xtables library	libxtst6	2:1.2.2-1
X11 Testing -- Record extension library	libxv1	2:1.0.10-1
X11 Video extension library	libxxf86dga1	2:1.1.4-1
X11 Direct Graphics Access extension library	libxxf86vm1	1:1.1.4-1

Package	Version	Description
X11 XFree86 video mode extension library	libyaml-0-2	0.1.6-3
Fast YAML 1.1 parser and emitter library	libzbar0	0.10+doc-10ubuntu1
bar code scanner and decoder (library)	linux-base	4.0ubuntu1
Linux image base package	linux-firmware	1.157.8
Firmware for Linux kernel drivers	linux-generic	4.4.0.64.68
Complete Generic Linux kernel and headers	linux-headers-3.13.0-110	3.13.0-110.157
Header files related to Linux kernel version 3.13.0	linux-headers-3.13.0-110-generic	3.13.0-110.157
Linux kernel headers for version 3.13.0 on 64 bit x86 SMP	linux-headers-4.4.0-64	4.4.0-64.85
Header files related to Linux kernel version 4.4.0	linux-headers-4.4.0-64-generic	4.4.0-64.85
Linux kernel headers for version 4.4.0 on 64 bit x86 SMP	linux-headers-generic	4.4.0.64.68
Generic Linux kernel headers	linux-image-3.13.0-110-generic	3.13.0-110.157
Linux kernel image for version 3.13.0 on 64 bit x86 SMP	linux-image-4.4.0-64-generic	4.4.0-64.85
Linux kernel image for version 4.4.0 on 64 bit x86 SMP	linux-image-extra-3.13.0-110-generic	3.13.0-110.157
Linux kernel extra modules for version 3.13.0 on 64 bit x86 SMP	linux-image-extra-4.4.0-64-generic	4.4.0-64.85
Linux kernel extra modules for version 4.4.0 on 64 bit x86 SMP	linux-image-generic	4.4.0.64.68
Generic Linux kernel image	linux-libc-dev	4.4.0-64.85
Linux Kernel Headers for development	locales	2.23-0ubuntu5
GNU C Library: National Language (locale) data [support]	lockfile-progs	0.1.17

Package	Version	Description
Programs for locking and unlocking files and mailboxes	login	1:4.2-3.1ubuntu5
system login tools	logrotate	3.8.7-2ubuntu2
Log rotation utility	lsb-base	9.20160110ubuntu0.2
Linux Standard Base init script functionality	lsb-release	9.20160110ubuntu0.2
Linux Standard Base version reporting utility	lshw	02.17-1.1ubuntu3.2
information about hardware configuration	lsuf	4.89+dfsg-0.1
Utility to list open files	ltrace	0.7.3-5.1ubuntu4
Tracks runtime library calls in dynamically linked programs	lvm2	2.02.133-1ubuntu10
Linux Logical Volume Manager	mailutils	1:2.99.99-1ubuntu2
GNU mailutils utilities for handling mail	mailutils-common	1:2.99.99-1ubuntu2
Common files for GNU mailutils	make	4.1-6
utility for directing compilation	makedev	2.3.1-93ubuntu1
creates device files in /dev	man-db	2.7.5-1
on-line manual pager	manpages	4.04-2
Manual pages about using a GNU/Linux system	manpages-dev	4.04-2
Manual pages about using GNU/Linux for development	mawk	1.3.3-17ubuntu2
a pattern scanning and text processing language	mdadm	3.3-2ubuntu7.1
tool to administer Linux MD arrays (software RAID)	memtest86+	5.01-3ubuntu2
thorough real-mode memory tester	mercurial	3.7.3-1ubuntu1
easy-to-use	scalable distributed version control system	mercurial-common

Package	Version	Description
3.7.3-1ubuntu1	easy-to-use	scalable distributed version control system (common files)
mercurial-server	1.2-2.2	shared Mercurial repository service
mime-support	3.59ubuntu1	MIME files 'mime.types' & 'mailcap'
and support programs	mlocate	0.26-1ubuntu2
quickly find files on the filesystem based on their name	module-init-tools	22-1ubuntu4
transitional dummy package (module-init-tools to kmod)	mount	2.27.1-6ubuntu3.2
tools for mounting and manipulating filesystems	mountall	2.54ubuntu1
filesystem mounting tool	mtr-tiny	0.86-1ubuntu0.1
Full screen ncurses traceroute tool	multiarch-support	2.23-0ubuntu5
Transitional package to ensure multiarch compatibility	mysql-client-5.7	5.7.17-0ubuntu0.16.04.1
MySQL database client binaries	mysql-client-core-5.7	5.7.17-0ubuntu0.16.04.1
MySQL database core client binaries	mysql-common	5.7.17-0ubuntu0.16.04.1
MySQL database common files	e.g. /etc/mysql/my.cnf	mysql-server
5.7.17-0ubuntu0.16.04.1	MySQL database server (metapackage depending on the latest version)	mysql-server-5.7
5.7.17-0ubuntu0.16.04.1	MySQL database server binaries and system database setup	mysql-server-core-5.7
5.7.17-0ubuntu0.16.04.1	MySQL database server binaries	nano
2.5.3-2ubuntu2	small	friendly text editor inspired by Pico
ncurses-base	6.0+20160213-1ubuntu1	basic terminal type definitions
ncurses-bin	6.0+20160213-1ubuntu1	terminal-related programs and man pages
ncurses-term	6.0+20160213-1ubuntu1	additional terminal type definitions

Package	Version	Description
net-tools	1.60-26ubuntu1	NET-3 networking toolkit
netbase	5.3	Basic TCP/IP networking system
netcat-openbsd	1.105-7ubuntu1	TCP/IP swiss army knife
netpbm	2:10.0-15.3	Graphics conversion tools between image formats
nfs-common	1:1.2.8-9ubuntu12	NFS support files common to client and server
notification-daemon	3.18.2-1	daemon for displaying passive pop-up notifications
ntfs-3g	1:2015.3.14AR.1-1ubuntu0.1	read/write NTFS driver for FUSE
ntpdate	1:4.2.8p4+dfsg-3ubuntu5.3	client for setting system time from NTP servers
openssh-client	1:7.2p2-4ubuntu2.1	secure shell (SSH) client
for secure access to remote machines	openssh-server	1:7.2p2-4ubuntu2.1
secure shell (SSH) server	for secure access from remote machines	openssh-sftp-server
1:7.2p2-4ubuntu2.1	secure shell (SSH) sftp server module	for SFTP access from remote machines
openssl	1.0.2g-1ubuntu4.6	Secure Sockets Layer toolkit - cryptographic utility
os-prober	1.70ubuntu3.3	utility to detect other OSes on a set of drives
parallel	20141022+ds1-1	build and execute command lines from standard input in parallel
parted	3.2-15	disk partition manipulator
passwd	1:4.2-3.1ubuntu5	change and administer password and group data
pastebinit	1.5-1	command-line pastebin client
patch	2.7.5-1	Apply a diff file to an original
pciutils	1:3.3.1-1.1ubuntu1	Linux PCI Utilities

Package	Version	Description
pdftk	2.02-4	tool for manipulating PDF documents
perl	5.22.1-9	Larry Wall's Practical Extraction and Report Language
perl-base	5.22.1-9	minimal Perl system
perl-modules-5.22	5.22.1-9	Core Perl modules
php5-cli	5.5.9+dfsg-1ubuntu4.21	command-line interpreter for the php5 scripting language
php5-common	5.5.9+dfsg-1ubuntu4.21	Common files for packages built from the php5 source
php5-json	1.3.2-2build1	JSON module for php5
php5-mysql	5.5.9+dfsg-1ubuntu4.21	MySQL module for php5
php5-readline	5.5.9+dfsg-1ubuntu4.21	Readline module for php5
plymouth	0.9.2-3ubuntu13.1	boot animation
logger and I/O multiplexer	plymouth-theme-ubuntu-text	0.9.2-3ubuntu13.1
boot animation	logger and I/O multiplexer - ubuntu text theme	po-debconf
1.0.19	tool for managing templates file translations with gettext	policykit-1
0.105-14.1	framework for managing administrative policies and privileges	poppler-data
0.4.7-7	encoding data for the poppler PDF rendering library	popularity-contest
1.64ubuntu2	Vote for your favourite packages automatically	postfix
3.1.0-3	High-performance mail transport agent	powermgmt-base
1.31+nmu1	Common utils and configs for power management	ppp
2.4.7-1+2ubuntu1	Point-to-Point Protocol (PPP) - daemon	pppconfig

Package	Version	Description
2.3.22	Text menu based utility for configuring ppp	pppoeconf
1.21ubuntu1	configures PPPoE/ADSL connections	procps
2:3.3.10-4ubuntu2.3	/proc file system utilities	psmisc
22.21-2.1build1	utilities that use the proc file system	python
2.7.11-1	interactive high-level object-oriented language (default version)	python-all
2.7.11-1	package depending on all supported Python runtime versions	python-all-dev
2.7.11-1	package depending on all supported Python development packages	python-apt
1.1.0~beta1build1	Python interface to libapt-pkg	python-apt-common
1.1.0~beta1build1	Python interface to libapt-pkg (locales)	python-attr
15.2.0-1	Attributes without boilerplate (Python 2)	python-bs4
4.4.1-1	error-tolerant HTML parser for Python	python-cffi-backend
1.5.2-1ubuntu1	Foreign Function Interface for Python calling C code - backend	python-chardet
2.3.0-2	universal character encoding detector for Python2	python-cheetah
2.4.4-3.fakesyncbuild1	text-based template engine and Python code generator	python-configobj
5.0.6-2	simple but powerful config file reader and writer for Python 2	python-crypto
2.6.1-6ubuntu0.16.04.2	cryptographic algorithms and protocols for Python	python-cryptography

Package	Version	Description
1.2.3-1ubuntu0.1	Python library exposing cryptographic recipes and primitives (Python 2)	python-debian
0.1.27ubuntu2	Python modules to work with Debian-related data formats	python-dev
2.7.11-1	header files and a static library for Python (default)	python-dnspython
1.12.0-1	DNS toolkit for Python	python-enum34
1.1.2-1	backport of Python 3.4's enum package	python-flup
1.0.2-5	Implements Python Web Server Gateway Interface (WSGI)	python-gdbm
2.7.11-2	GNU dbm database support for Python	python-html5lib
0.999-4	HTML parser/tokenizer based on the WHATWG HTML5 specification (Python 2)	python-idna
2.0-3	Python IDNA2008 (RFC 5891) handling (Python 2)	python-imaging
3.1.2-0ubuntu1	Python Imaging Library compatibility layer	python-ipaddress
1.0.16-1	Backport of Python 3 ipaddress module (Python 2)	python-ldb
2:1.1.24-1ubuntu3	Python bindings for LDB	python-lxml
3.5.0-1build1	pythonic binding for the libxml2 and libxslt libraries	python-markdown
2.6.6-1	text-to-HTML conversion library/tool (Python 2 version)	python-markdown-doc
2.6.6-1	text-to-HTML conversion library/tool (documentation)	python-minimal
2.7.11-1	minimal subset of the Python language (default version)	python-mysqldb
1.3.7-1build2	Python interface to MySQL	python-ndg-httpsclient

Package	Version	Description
0.4.0-3	enhanced HTTPS support for httplib and urllib2 using PyOpenSSL for Python2	python-newt
0.52.18-1ubuntu2	NEWT module for Python	python-openssl
0.15.1-2build1	Python 2 wrapper around the OpenSSL library	python-pam
0.4.2-13.2ubuntu2	Python interface to the PAM library	python-pdfminer
20140328+dfsg-1	PDF parser and analyser	python-pil
3.1.2-0ubuntu1	Python Imaging Library (Pillow fork)	python-pip
8.1.1-2ubuntu0.4	alternative Python package installer	python-pip-whl
8.1.1-2ubuntu0.4	alternative Python package installer	python-pkg-resources
20.7.0-1	Package Discovery and Resource Access using pkg_resources	python-pyasn1
0.1.9-1	ASN.1 library for Python (Python 2 module)	python-pyasn1-modules
0.0.7-0.1	Collection of protocols modules written in ASN.1 language	python-pygments
2.1+dfsg-1	syntax highlighting package written in Python	python-requests
2.9.1-3	elegant and simple HTTP library for Python2	built for human beings
python-samba	2:4.3.11+dfsg-0ubuntu0.16.04.3	Python bindings for Samba
python-serial	3.0.1-1	pyserial - module encapsulating access for the serial port
python-service-identity	16.0.0-2	Service identity verification for pyOpenSSL (Python 2 module)
python-setuptools	20.7.0-1	Python Distutils Enhancements
python-six	1.10.0-3	Python 2 and 3 compatibility library (Python 2 interface)
python-stdeb	0.8.5-1	Python to Debian source package conversion utility

Package	Version	Description
python-talloc	2.1.5-2	hierarchical pool based memory allocator - Python bindings
python-tdb	1.3.8-2	Python bindings for TDB
python-twisted-bin	16.0.0-1	Event-based framework for internet applications
python-twisted-core	16.0.0-1	Event-based framework for internet applications
python-urllib3	1.13.1-2ubuntu0.16.04.1	HTTP library with thread-safe connection pooling for Python
python-webpy	1:0.37+20120626-1	Web framework for Python applications
python-wheel	0.29.0-1	built-package format for Python
python-yaml	3.11-3build1	YAML parser and emitter for Python
python-zbar	0.10+doc-10ubuntu1	bar code scanner and decoder (Python bindings)
python-zope.interface	4.1.3-1build1	Interfaces for Python
python2.7	2.7.12-1ubuntu0~16.04.1	Interactive high-level object-oriented language (version 2.7)
python2.7-dbg	2.7.12-1ubuntu0~16.04.1	Debug Build of the Python Interpreter (version 2.7)
python2.7-dev	2.7.12-1ubuntu0~16.04.1	Header files and a static library for Python (v2.7)
python2.7-minimal	2.7.12-1ubuntu0~16.04.1	Minimal subset of the Python language (version 2.7)
python3	3.5.1-3	interactive high-level object-oriented language (default python3 version)
python3-apport	2.20.1-0ubuntu2.5	Python 3 library for Apport crash report handling
python3-apt	1.1.0~beta1build1	Python 3 interface to libapt-pkg
python3-chardet	2.3.0-2	universal character encoding detector for Python3

Package	Version	Description
python3-commandnotfound	0.3ubuntu16.04.2	Python 3 bindings for command-not-found.
python3-dbus	1.2.0-3	simple interprocess messaging system (Python 3 interface)
python3-debian	0.1.27ubuntu2	Python 3 modules to work with Debian-related data formats
python3-distupgrade	1:16.04.21	manage release upgrades
python3-gdbm	3.5.1-1	GNU dbm database support for Python 3.x
python3-gi	3.20.0-0ubuntu1	Python 3 bindings for gobject-introspection libraries
python3-minimal	3.5.1-3	minimal subset of the Python language (default python3 version)
python3-pkg-resources	20.7.0-1	Package Discovery and Resource Access using pkg_resources
python3-problem-report	2.20.1-0ubuntu2.5	Python 3 library to handle problem reports
python3-pycurl	7.43.0-1ubuntu1	Python bindings to libcurl (Python 3)
python3-pyinotify	0.9.6-0fakesync1	simple Linux inotify Python bindings
python3-requests	2.9.1-3	elegant and simple HTTP library for Python3
built for human beings	python3-six	1.10.0-3
Python 2 and 3 compatibility library (Python 3 interface)	python3-software-properties	0.96.20.5
manage the repositories that you install software from	python3-systemd	231-2build1
Python 3 bindings for systemd	python3-update-manager	1:16.04.5
python 3.x module for update-manager	python3-urllib3	1.13.1-2ubuntu0.16.04.1
HTTP library with thread-safe connection pooling for Python3	python3-xapian1.3	1.3.4-0ubuntu1

Package	Version	Description
Xapian search engine interface for Python3	python3.5	3.5.2-2ubuntu0~16.04.1
Interactive high-level object-oriented language (version 3.5)	python3.5-minimal	3.5.2-2ubuntu0~16.04.1
Minimal subset of the Python language (version 3.5)	qttranslations5-l10n	5.5.1-2build1
translations for Qt 5	readline-common	6.3-8ubuntu2
GNU readline and history libraries	common files	rename
0.20-4	Perl extension for renaming multiple files	resolvconf
1.78ubuntu2	name server information handler	rpcbind
0.2.3-0.2	converts RPC program numbers into universal addresses	rsync
3.1.1-3ubuntu1	fast	versatile
remote (and local) file-copying tool	rsyslog	8.16.0-1ubuntu3
reliable system and kernel logging daemon	run-one	1.17-0ubuntu1
run just one instance of a command and its args at a time	samba	2:4.3.11+dfsg-0ubuntu0.16.04.3
SMB/CIFS file	print	and login server for Unix
samba-common	2:4.3.11+dfsg-0ubuntu0.16.04.3	common files used by both the Samba server and client
samba-common-bin	2:4.3.11+dfsg-0ubuntu0.16.04.3	Samba common files used by both the server and the client
samba-doc	2:4.3.11+dfsg-0ubuntu0.14.04.4	Samba documentation
samba-dsdb-modules	2:4.3.11+dfsg-0ubuntu0.16.04.3	Samba Directory Services Database
samba-libs	2:4.3.11+dfsg-0ubuntu0.16.04.3	Samba core libraries
samba-vfs-modules	2:4.3.11+dfsg-0ubuntu0.16.04.3	Samba Virtual FileSystem plugins
screen	4.3.1-2build1	terminal multiplexer with VT100/ANSI terminal emulation
sed	4.2.2-7	The GNU sed stream editor

Package	Version	Description
sensible-utils	0.0.9	Utilities for sensible alternative selection
sgml-base	1.26+nmu4ubuntu1	SGML infrastructure and SGML catalog file support
shared-mime-info	1.5-2ubuntu0.1	FreeDesktop.org shared MIME database and spec
smbclient	2:4.3.11+dfsg-0ubuntu0.16.04.3	command-line SMB/CIFS clients for Unix
software-properties-common	0.96.20.5	manage the repositories that you install software from (common)
ssh-import-id	5.5-0ubuntu1	securely retrieve an SSH public key and install it locally
ssl-cert	1.0.37	simple debconf wrapper for OpenSSL
strace	4.11-1ubuntu3	System call tracer
sudo	1.8.16-0ubuntu1.3	Provide limited super user privileges to specific users
sysstat	11.2.0-1ubuntu0.1	system performance tools for Linux
systemd	229-4ubuntu16	system and service manager
systemd-shim	9-1b3r4ubuntu1	shim for systemd
systemd-sysv	229-4ubuntu16	system and service manager - SysV links
sysv-rc	2.88dsf-59.3ubuntu2	System-V-like runlevel change mechanism
sysvinit-utils	2.88dsf-59.3ubuntu2	System-V-like utilities
tar	1.28-2.1ubuntu0.1	GNU version of the tar archiving utility
tasksel	3.34ubuntu3	tool for selecting tasks for installation on Debian systems
tasksel-data	3.34ubuntu3	official tasks used for installation of Debian systems

Package	Version	Description
tcl	8.6.0+9	Tool Command Language (default version) - shell
tcl8.6	8.6.5+dfsg-2	Tcl (the Tool Command Language) v8.6 - shell
tcpd	7.6.q-25	Wietse Venema's TCP wrapper utilities
tcpdump	4.9.0-1ubuntu1~ubuntu16.04.1	command-line network traffic analyzer
tdb-tools	1.3.8-2	Trivial Database - bundled binaries
telnet	0.17-40	basic telnet client
tesseract-ocr	3.04.01-4	Tesseract command line OCR tool
tesseract-ocr-eng	3.04.00-1	tesseract-ocr language files for English
tesseract-ocr-equ	3.04.00-1	tesseract-ocr language files for equations
tesseract-ocr-osd	3.04.00-1	tesseract-ocr language files for script and orientation
thermald	1.5-2ubuntu2	Thermal monitoring and controlling daemon
time	1.7-25.1	GNU time program for measuring CPU resource usage
tk	8.6.0+9	Toolkit for Tcl and X11 (default version) - windowing shell
tk8.6	8.6.5-1	Tk toolkit for Tcl and X11 v8.6 - windowing shell
tmux	2.1-3build1	terminal multiplexer
tzdata	2016j-0ubuntu0.16.04	time zone and daylight-saving time data
ubuntu-keyring	2012.05.19	GnuPG keys of the Ubuntu archive
ubuntu-minimal	1.361	Minimal core of Ubuntu
ubuntu-mono	14.04+16.04.20161024-0ubuntu1	Ubuntu Mono Icon theme
ubuntu-release-upgrader-core	1:16.04.21	manage release upgrades

Package	Version	Description
ubuntu-standard	1.361	The Ubuntu standard system
ucf	3.0036	Update Configuration File(s): preserve user changes to config files
udev	229-4ubuntu16	/dev/ and hotplug management daemon
ufw	0.35-0ubuntu2	program for managing a Netfilter firewall
unattended-upgrades	0.90ubuntu0.3	automatic installation of security upgrades
unzip	6.0-20ubuntu1	De-archiver for .zip files
update-inetd	4.43	inetd configuration file updater
update-manager-core	1:16.04.5	manage release upgrades
update-motd	3.6-0ubuntu1	compliments pam_motd in libpam-modules
update-notifier-common	3.168.3	Files shared between update-notifier and other packages
upstart	1.13.2-0ubuntu21.1	event-based init daemon - essential binaries
ureadahead	0.100.0-19	Read required files in advance
usbutils	1:007-4	Linux USB utilities
util-linux	2.27.1-6ubuntu3.2	miscellaneous system utilities
uuid-runtime	2.27.1-6ubuntu3.2	runtime components for the Universally Unique ID library
vim	2:7.4.1689-3ubuntu1.2	Vi IMproved - enhanced vi editor
vim-common	2:7.4.1689-3ubuntu1.2	Vi IMproved - Common files
vim-runtime	2:7.4.1689-3ubuntu1.2	Vi IMproved - Runtime files
vim-tiny	2:7.4.1689-3ubuntu1.2	Vi IMproved - enhanced vi editor - compact version
virtualbox-5.1	5.1.14-112924~Ubuntu~xenial	Oracle VM VirtualBox

Package	Version	Description
w3m	0.5.3-26build1	WWW browsable pager with excellent tables/frames support
wget	1.17.1-1ubuntu1.1	retrieves files from the web
whiptail	0.52.18-1ubuntu2	Displays user-friendly dialog boxes from shell scripts
whois	5.2.11	intelligent WHOIS client
whoopsie	0.2.52.2	Ubuntu error tracker submission
winbind	2:4.3.11+dfsg-0ubuntu0.16.04.3	service to resolve user and group information from Windows NT servers
wipe	0.22-3	secure file deletion
wireless-regdb	2015.07.20-1ubuntu1	wireless regulatory database
wireless-tools	30~pre9-8ubuntu1	Tools for manipulating Linux Wireless Extensions
wpa_supplicant	2.4-0ubuntu6	client support for WPA and WPA2 (IEEE 802.11i)
x11-common	1:7.7+13ubuntu3	X Window System (X.Org) infrastructure
x11-utils	7.7+3	X11 utilities
x11-xserver-utils	7.7+7	X server utilities
xauth	1:1.0.9-1ubuntu2	X authentication utility
xbitmaps	1.1.1-2	Base X bitmaps
xdg-user-dirs	0.15-2ubuntu6	tool to manage well known user directories
xdg-utils	1.1.1-1ubuntu1.16.04.1	desktop integration utilities from freedesktop.org
xkb-data	2.16-1ubuntu1	X Keyboard Extension (XKB) configuration data
xml-core	0.13+nmu2	XML infrastructure and XML catalog file support
xterm	322-1ubuntu1	X terminal emulator

Package	Version	Description
xutils-dev	1:7.7+3ubuntu2	X Window System utility programs for development
xz-utils	5.1.1alpha+20120614-2ubuntu2	XZ-format compression utilities
zathura	0.3.5-1	document viewer with a minimalistic interface
zathura-pdf-poppler	0.2.6-1	PDF support for zathura
zip	3.0-11	Archiver for .zip files
zlib1g	1:1.2.8.dfsg-2ubuntu4	compression library - runtime