

# Description

Activities Terminal ▾ Jun 3 19:47

```
ubuntu@ubuntu:~$ uname
Linux
ubuntu@ubuntu:~$ uname -n
ubuntu
ubuntu@ubuntu:~$ uname -v
#56~20.04.1-Ubuntu SMP Mon Apr 12 21:46:35 UTC 2021
ubuntu@ubuntu:~$ uname -r
5.8.0-50-generic
ubuntu@ubuntu:~$ uname -m
x86_64
ubuntu@ubuntu:~$ uname -a
Linux ubuntu 5.8.0-50-generic #56~20.04.1-Ubuntu SMP Mon Apr 12 21:46:35 UTC 20
21 x86_64 x86_64 x86_64 GNU/Linux
ubuntu@ubuntu:~$ sudo lshw
[sudo] password for ubuntu:
sudo: lshw: command not found
ubuntu@ubuntu:~$ sudo lshw
ubuntu
      description: Computer
      product: VMware Virtual Platform
      vendor: VMware, Inc.
      version: None
      serial: VMware-56 4d 10 af b6 6c 33 80-24 1a dc 09 16 0f 1a a2
      width: 64 bits
      capabilities: smbios-2.7 dmi-2.7 vsyscall32
      configuration: administrator_password=enabled boot=normal frontpanel_passwo
rd=unknown keyboard_password=unknown power-on_password=disabled uuid=564D10AF-B
66C-3380-241A-DC09160F1AA2
*-core
```

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```
ubuntu@ubuntu:~$ lshw
      description: CPU
      product: Intel(R) Core(TM) i5-3230M CPU @ 2.60GHz
      vendor: Intel Corp.
      physical id: 4
      bus info: cpu@0
      version: Intel(R) Core(TM) i5-3230M CPU @ 2.60GHz
      slot: CPU #000
      size: 2600MHz
      capacity: 4230MHz
      width: 64 bits
      capabilities: lm fpu fpu_exception wp vme de pse tsc msr pae mce cx8
apic sep mtrr pge mca cmov pat pse36 clflush dts mmx fxsr sse sse2 ss syscall n
x rdtscp x86-64 constant_tsc arch_perfmon pebs bts nopl xtopology tsc_reliable
nonstop_tsc cpuid aperfmpf perf pni pclmulqdq ssse3 cx16 pcid sse4_1 sse4_2 x2apic
popcnt tsc_deadline_timer aes xsave avx f16c rdrand hypervisor lahf_lm cpuid_f
ault epb pti fsgsbase tsc_adjust smep dtherm ida arat pln pts
      configuration: cores=4 enabledcores=4
*-cache
      description: L1 cache
      physical id: 94
      slot: L1
      size: 16KiB
      capacity: 16KiB
      capabilities: asynchronous internal write-back
      configuration: level=1
*-cpu:1 DISABLED
      description: CPU
      vendor: GenuineIntel
      physical id: 5
```

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```
ubuntu@ubuntu:~
```

```
configuration: driver=vmwgfx latency=64
resources: irq:16 ioport:1070(size=16) memory:e8000000-ffffffff me
mory:fe000000-fe7fffff memory:c0000-dffff
*-scsi
    description: SCSI storage controller
    product: 53c1030 PCI-X Fusion-MPT Dual Ultra320 SCSI
    vendor: Broadcom / LSI
    physical id: 10
    bus info: pci@0000:00:10.0
    version: 01
    width: 64 bits
    clock: 33MHz
    capabilities: scsi bus_master cap_list rom
    configuration: driver=mptspi latency=64 maxlatency=255 mingnt=6
    resources: irq:17 ioport:1400(size=256) memory:fea0000-febbffff m
emory:febcb0000-febdffff memory:c0008000-c000bf00
*-pci:1
    description: PCI bridge
    product: PCI bridge
    vendor: VMware
    physical id: 11
    bus info: pci@0000:00:11.0
    version: 02
    width: 32 bits
    clock: 33MHz
    capabilities: pci subtractive_decode bus_master cap_list
    resources: ioport:2000(size=8192) memory:fd500000-fdfffff ioport:
e7b00000(size=5242880)
*-usb:0
```

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```
ubuntu@ubuntu:~
```

```
version: 1.00
capabilities: usb-1.10
configuration: driver=hub slots=7 speed=12Mbit/s
*-network
    description: Ethernet interface
    product: 82545EM Gigabit Ethernet Controller (Copper)
    vendor: Intel Corporation
    physical id: 1
    bus info: pci@0000:02:01.0
    logical name: ens33
    version: 01
    serial: 00:0c:29:0f:1a:a2
    size: 1Gbit/s
    capacity: 1Gbit/s
    width: 64 bits
    clock: 66MHz
    capabilities: pm pcix bus_master cap_list rom ethernet physical
logical tp 10bt 10bt-fd 100bt 100bt-fd 1000bt-fd autonegotiation
    configuration: autonegotiation=on broadcast=yes driver=e1000 dr
iverversion=7.3.21-k8-NAPI duplex=full ip=192.168.52.128 latency=0 link=yes min
gnt=255 multicast=yes port=twisted pair speed=1Gbit/s
    resources: irq:19 memory:fd5c0000-fd5dffff memory:fdff0000-fdff
ffff ioport:2000(size=64) memory:fd500000-fd50ffff
*-multimedia
    description: Multimedia audio controller
    product: ES1371/ES1373 / Creative Labs CT2518
    vendor: Ensoniq
    physical id: 2
    bus info: pci@0000:02:02.0
```

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ubuntu@ubuntu:~\$ sudo lshw -short  
[sudo] password for ubuntu:

H/W path	Device	Class	Description
/		system	VMware Virtual Platform
/0		bus	440BX Desktop Reference Platform
/0/0		memory	86KiB BIOS
/0/4		processor	Intel(R) Core(TM) i5-3230M CPU @ 2.
/0/4/94		memory	16KiB L1 cache
/0/5		processor	CPU
/0/5/95		memory	16KiB L1 cache
/0/6		processor	CPU
/0/6/96		memory	16KiB L1 cache
/0/7		processor	CPU
/0/7/97		memory	16KiB L1 cache
/0/8		processor	CPU
/0/8/98		memory	16KiB L1 cache
/0/9		processor	CPU
/0/9/99		memory	16KiB L1 cache
/0/a		processor	CPU
/0/a/9a		memory	16KiB L1 cache
/0/b		processor	CPU
/0/b/9b		memory	16KiB L1 cache
/0/c		processor	CPU
/0/c/9c		memory	16KiB L1 cache
/0/d		processor	CPU
/0/d/9d		memorv	16KiB L1 cache

Activities Terminal ▾ Jun 3 20:02

ubuntu@ubuntu:~\$ lscpu

Architecture:	x86_64
CPU op-mode(s):	32-bit, 64-bit
Byte Order:	Little Endian
Address sizes:	42 bits physical, 48 bits virtual
CPU(s):	1
On-line CPU(s) list:	0
Thread(s) per core:	1
Core(s) per socket:	1
Socket(s):	1
NUMA node(s):	1
Vendor ID:	GenuineIntel
CPU family:	6
Model:	58
Model name:	Intel(R) Core(TM) i5-3230M CPU @ 2.60GHz
Stepping:	9
CPU MHz:	2601.000
BogoMIPS:	5202.00
Hypervisor vendor:	VMware
Virtualization type:	full
L1d cache:	32 KiB
L1i cache:	32 KiB
L2 cache:	256 KiB
L3 cache:	3 MiB
NUMA node0 CPU(s):	0
Vulnerability Itlb multihit:	KVM: Mitigation: VMX unsupported
Vulnerability L1tf:	Mitigation: PTE Inversion

# System call

Activities Terminal ▾ Jun 6 11:48

```
ubuntu@ubuntu:~$ To run a command as administrator (user "root"), use "sudo <command>". See "man sudo_root" for details.  
ubuntu@ubuntu:~$ sudo apt-get update  
[sudo] password for ubuntu:  
Hit:1 http://us.archive.ubuntu.com/ubuntu focal InRelease  
Get:2 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]  
Get:3 http://us.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]  
Get:4 http://us.archive.ubuntu.com/ubuntu focal-backports InRelease [101 kB]  
Fetched 328 kB in 2s (177 kB/s)  
Reading package lists... Done  
ubuntu@ubuntu:~$ sudo apt-get upgrade
```

Activities Terminal ▾ Jun 6 11:59

```
root@ubuntu:/home/ubuntu$ sudo -s  
root@ubuntu:/home/ubuntu# apt-get install gcc  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following additional packages will be installed:  
  binutils binutils-common binutils-x86_64-linux-gnu gcc-9 libasan5  
  libatomic1 libbinutils libc-dev-bin libc6-dev libcrypt-dev libctf-nobfd0  
  libctf0 libgcc-9-dev libitm1 liblsan0 libquadmath0 libtsan0 libubsan1  
  linux-libc-dev manpages-dev  
Suggested packages:  
  binutils-doc gcc-multilib make autoconf automake libtool flex bison gcc-doc  
  gcc-9-multilib gcc-9-doc gcc-9-locales glibc-doc  
The following NEW packages will be installed:  
  binutils binutils-common binutils-x86_64-linux-gnu gcc gcc-9 libasan5  
  libatomic1 libbinutils libc-dev-bin libc6-dev libcrypt-dev libctf-nobfd0  
  libctf0 libgcc-9-dev libitm1 liblsan0 libquadmath0 libtsan0 libubsan1  
  linux-libc-dev manpages-dev  
0 upgraded, 21 newly installed, 0 to remove and 1 not upgraded.  
Need to get 20.3 MB of archives.  
After this operation, 93.0 MB of additional disk space will be used.  
Do you want to continue? [Y/n]
```

Activities Terminal Jun 6 12:04

```
root@ubuntu:/home/ubuntu
Setting up python2.7-dev (2.7.18-1~20.04.1) ...
Setting up python2-dev (2.7.17-2ubuntu4) ...
Setting up python-dev-is-python2 (2.7.17-4) ...
Setting up python3-dev (3.8.2-0ubuntu2) ...
Processing triggers for mime-support (3.64ubuntu1) ...
Processing triggers for gnome-menus (3.36.0-1ubuntu1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.2) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for desktop-file-utils (0.24-1ubuntu3) ...
root@ubuntu:/home/ubuntu# apt-get install libffi-dev
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  libffi-dev
0 upgraded, 1 newly installed, 0 to remove and 1 not upgraded.
Need to get 57.0 kB of archives.
After this operation, 312 kB of additional disk space will be used.
Get:1 http://us.archive.ubuntu.com/ubuntu focal/main amd64 libffi-dev amd64 3.3-4 [57.0 kB]
Fetched 57.0 kB in 1s (87.7 kB/s)
Selecting previously unselected package libffi-dev:amd64.
(Reading database ... 189877 files and directories currently installed.)
Preparing to unpack .../libffi-dev_3.3-4_amd64.deb ...
Unpacking libffi-dev:amd64 (3.3-4) ...
Setting up libffi-dev:amd64 (3.3-4) ...
Processing triggers for install-info (6.7.0.dfsg.2-5) ...
Processing triggers for man-db (2.9.1-1) ...
root@ubuntu:/home/ubuntu# apt-get install libssl-dev
```

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```
root@ubuntu:/home/ubuntu
Selecting previously unselected package libicu-dev:amd64.
Preparing to unpack .../libicu-dev_66.1-2ubuntu2_amd64.deb ...
Unpacking libicu-dev:amd64 (66.1-2ubuntu2) ...
Selecting previously unselected package libxml2-dev:amd64.
Preparing to unpack .../libxml2-dev_2.9.10+dfsg-5_amd64.deb ...
Unpacking libxml2-dev:amd64 (2.9.10+dfsg-5) ...
Setting up icu-devtools (66.1-2ubuntu2) ...
Setting up libicu-dev:amd64 (66.1-2ubuntu2) ...
Setting up libxml2-dev:amd64 (2.9.10+dfsg-5) ...
Processing triggers for man-db (2.9.1-1) ...
root@ubuntu:/home/ubuntu# apt-get install libxslt1-dev
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  libxslt1-dev
0 upgraded, 1 newly installed, 0 to remove and 1 not upgraded.
Need to get 219 kB of archives.
After this operation, 2,058 kB of additional disk space will be used.
Get:1 http://us.archive.ubuntu.com/ubuntu focal/main amd64 libxslt1-dev amd64 1.1.34-4 [219 kB]
Fetched 219 kB in 1s (220 kB/s)
Selecting previously unselected package libxslt1-dev:amd64.
(Reading database ... 190342 files and directories currently installed.)
Preparing to unpack .../libxslt1-dev_1.1.34-4_amd64.deb ...
Unpacking libxslt1-dev:amd64 (1.1.34-4) ...
Setting up libxslt1-dev:amd64 (1.1.34-4) ...
Processing triggers for man-db (2.9.1-1) ...
root@ubuntu:/home/ubuntu#
```

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```
root@ubuntu:/home/ubuntu
After this operation, 1,015 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 libjpeg-turbo8-dev amd64 2.0.3-0ubuntu1.20.04.1 [238 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu focal/main amd64 libjpeg8-dev amd64 8c-2ubuntu8 [1,552 B]
Fetched 240 kB in 1s (234 kB/s)
Selecting previously unselected package libjpeg-turbo8-dev:amd64.
(Reading database ... 190482 files and directories currently installed.)
Preparing to unpack .../libjpeg-turbo8-dev_2.0.3-0ubuntu1.20.04.1_amd64.deb ...
Unpacking libjpeg-turbo8-dev:amd64 (2.0.3-0ubuntu1.20.04.1) ...
Selecting previously unselected package libjpeg8-dev:amd64.
Preparing to unpack .../libjpeg8-dev_8c-2ubuntu8_amd64.deb ...
Unpacking libjpeg8-dev:amd64 (8c-2ubuntu8) ...
Setting up libjpeg-turbo8-dev:amd64 (2.0.3-0ubuntu1.20.04.1) ...
Setting up libjpeg8-dev:amd64 (8c-2ubuntu8) ...
root@ubuntu:/home/ubuntu# apt-get install zlib1g-dev
Reading package lists... Done
Building dependency tree
Reading state information... Done
E: Unable to locate package zlib1g-dev
root@ubuntu:/home/ubuntu# apt-get install zlib1g-dev
Reading package lists... Done
Building dependency tree
Reading state information... Done
zlib1g-dev is already the newest version (1:1.2.11.dfsg-2ubuntu1.2).
zlib1g-dev set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 1 not upgraded.
root@ubuntu:/home/ubuntu# apt-get install libncursesw5-dev
```

Activities Terminal Jun 6 12:21

```
ubuntu@ubuntu:~
```

root@ubuntu:~

ubuntu@ubuntu:~

ubuntu@ubuntu:~

```
ubuntu@ubuntu:~$ uname -r
5.8.0-55-generic
ubuntu@ubuntu:~$ wget https://www.kernel.org/pub/linux/kernel/v4.x/linux-4.10.13.tar.gz
```

Activities Terminal Jun 6 12:21

Activities Terminal Jun 6 12:25

```
root@ubuntu: ~ x root@ubuntu: /hom... x ubuntu@ubuntu: ~ x
0::1
Connecting to www.kernel.org (www.kernel.org)|136.144.49.103|:443... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: https://mirrors.edge.kernel.org/pub/linux/kernel/v4.x/linux-4.10.13.t
ar.gz [following]
--2021-06-06 12:21:45-- https://mirrors.edge.kernel.org/pub/linux/kernel/v4.x/
linux-4.10.13.tar.gz
Resolving mirrors.edge.kernel.org (mirrors.edge.kernel.org)... 147.75.101.1, 26
04:1380:2001:3900::1
Connecting to mirrors.edge.kernel.org (mirrors.edge.kernel.org)|147.75.101.1|:4
43... connected.
HTTP request sent, awaiting response... 200 OK
Length: 143967305 (137M) [application/x-gzip]
Saving to: 'linux-4.10.13.tar.gz'

linux-4.10.13.tar.g 100%[=====] 137.30M 1.80MB/s in 69s
2021-06-06 12:22:55 (1.98 MB/s) - 'linux-4.10.13.tar.gz' saved [143967305/14396
7305]

ubuntu@ubuntu:~$ ls
Desktop Downloads Music Public Videos
Documents linux-4.10.13.tar.gz Pictures Templates
ubuntu@ubuntu:~$ sudo -s
[sudo] password for ubuntu:
root@ubuntu:/home/ubuntu# tar -xvf linux-4.10.13.tar.gz -C/usr/src/
```

Activities Terminal Jun 6 12:38

```
root@ubuntu: /usr/src/linux-4.10.13/helloworld x root@ubuntu: /us... x ubuntu@ubuntu: ~ x
root@ubuntu:/home/ubuntu# ls
Desktop Downloads Music Public Videos
Documents linux-4.10.13.tar.gz Pictures Templates
root@ubuntu:/home/ubuntu# cd /usr/src
root@ubuntu:/usr/src# ls
linux-4.10.13 linux-hwe-5.8-headers-5.8.0-43
linux-headers-5.8.0-43-generic linux-hwe-5.8-headers-5.8.0-55
linux-headers-5.8.0-55-generic
root@ubuntu:/usr/src# cd linux-4.10.13
root@ubuntu:/usr/src/linux-4.10.13# ls
arch crypto include kernel net sound
block Documentation init lib README tools
certs drivers ipc MAINTAINERS samples usr
COPYING firmware Kbuild Makefile scripts virt
CREDITS fs Kconfig mm security
root@ubuntu:/usr/src/linux-4.10.13# mkdir helloworld
root@ubuntu:/usr/src/linux-4.10.13# cd helloworld
root@ubuntu:/usr/src/linux-4.10.13/helloworld# gedit helloworld.c

(gedit:41398): Tepl-WARNING **: 12:37:51.466: GVfs metadata is not supported. F
allback to TeplMetadataManager. Either GVfs is not correctly installed or GVfs
metadata are not supported on this platform. In the latter case, you should con
figure Tepl with --disable-gvfs-metadata.
root@ubuntu:/usr/src/linux-4.10.13/helloworld#
```

Activities Text Editor Jun 8 08:03

Open Save

helloworld.c /usr/src/linux-5.8.1/helloworld

```
1 #include <linux/kernel.h>
2 asmlinkage long sys_helloworld(void)
3 {
4     printk("hello Adel\n");
5     return 0;
6 }
7 }
```

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Activities Text Editor Jun 6 12:41

Open Save

Makefile /usr/src/linux-4.10.13/helloworld

```
1 obj-y:=helloworld.o
```

Makefile Tab Width: 8 Ln 1, Col 1 INS

Activities Text Editor Jun 6 12:43

\*Makefile /usr/src/linux-4.10.13

```
906 else
907 mod_sign_cmd = true
908 endif
909 export mod_sign_cmd
910
911
912 ifeq ($(KBUILD_EXTMOD),)
913 core-y += kernel/ certs/ mm/ fs/ ipc/ security/ crypto/ block/
helloworld/
914
915 vmlinux-dirs := $(patsubst %/,%, $(filter %, $(init-y) $(init-m) \
916 $(core-y) $(core-m) $(drivers-y) $(drivers-m) \
917 $(net-y) $(net-m) $(libs-y) $(libs-m) $(virt-y)))
918
919 vmlinux-alldirs := $(sort $(vmlinux-dirs) $(patsubst %/,%, $(filter
%/, \
920 $(init-) $(core-) $(drivers-) $(net-) $(libs-) $ \
(virt-))))
921
922 init-y := $(patsubst %/, %/built-in.o, $(init-y))
923 core-y := $(patsubst %/, %/built-in.o, $(core-y))
924 drivers-y := $(patsubst %/, %/built-in.o, $(drivers-y))
925 net-y := $(patsubst %/, %/built-in.o, $(net-y))
926 libs-y1 := $(patsubst %/, %/lib.a, $(libs-y))
927 libs-y2 := $(patsubst %/, %/built-in.o, $(libs-y))
928 libs-y := $(libs-y1) $(libs-y2)
929 virt-y := $(patsubst %/, %/built-in.o, $(virt-y))
930
```

root@ubuntu: /usr/src/linux-4.10.13/include/linux

```
root@ubuntu: ~          root@ubuntu: /usr/s...          ubuntu@ubuntu: ~
root@ubuntu:/usr/src/linux-4.10.13/helloworld# cd ..
root@ubuntu:/usr/src/linux-4.10.13# gedit Makefile

(gedit:41510): Tepl-WARNING **: 12:44:09.901: GVfs metadata is not supported. Fallback to TeplMetadataManager. Either GVfs is not correctly installed or GVfs metadata are not supported on this platform. In the latter case, you should configure Tepl with --disable-gvfs-metadata.
root@ubuntu:/usr/src/linux-4.10.13# cd include/linux
root@ubuntu:/usr/src/linux-4.10.13/include/linux# ls
8250_pci.h           i2c-pnx.h           pid_namespace.h
acct.h               i2c-pxa.h           pim.h
acpi_dma.h          i2c-smbus.h        pinctrl
acpi.h               i2c-xiic.h         pipe_fs_i.h
acpi_iort.h          i7300_idle.h       pkeys.h
acpi_pmtmr.h        i8042.h            pktdvd.h
adb.h                i8253.h            pl320-ipc.h
adfs_fs.h            icmp.h             platform_data
aer.h                icmpv6.h          platform_device.h
app_backend.h        ide.h              plist.h
appgارت.h           idr.h              pm2301_charger.h
ahci_platform.h      ieee80211.h        pm_clock.h
ahci-remap.h         ieee802154.h        pm_domain.h
aio.h                if_arp.h           pmem.h
alarmtimer.h         if_bridge.h        pm.h
altera_jtaguart.h   if_eql.h           pm_opp.h
altera_uart.h        if_ether.h         pm_qos.h
amba                if_fddi.h          dm_runtime.h
```

Activities Text Editor Jun 6 12:51

Open +/- Save ☰ - □ X

\*syscall\_64.tbl /usr/src/linux-4.10.13/arch/x86/entry/syscalls

331	322	64	execveat sys_execveat/ptregs
332	323	common	userfaultfd sys_userfaultfd
333	324	common	mbarrier sys_mbarrier
334	325	common	mlock2 sys_mlock2
335	326	common	copy_file_range sys_copy_file_range
336	327	64	preadv2 sys_preadv2
337	328	64	pwritev2 sys_pwritev2
338	329	common	pkey_mprotect sys_pkey_mprotect
339	330	common	pkey_alloc sys_pkey_alloc
340	331	common	pkey_free sys_pkey_free
341	332	64	helloworld sys_helloworld
342			
343	#		
344	#	x32-specific system call numbers start at 512 to avoid cache impact	
345	#	for native 64-bit operation.	
346	#		
347	512	x32	rt_sigaction compat_sys_rt_sigaction
348	513	x32	rt_sigreturn sys32_x32_rt_sigreturn
349	514	x32	ioctl compat_sys_ioctl
350	515	x32	readv compat_sys_readv
351	516	x32	writev compat_sys_writev
352	517	x32	recvfrom compat_sys_recvfrom
353	518	x32	sendmsg compat_sys_sendmsg
354	519	x32	recvmsg compat_sys_recvmmsg
355	520	x32	execve compat_sys_execve/ptregs
356	521	x32	ptrace compat_sys_ptrace
357	522	x32	rt_sigpending compat_sys_rt_sigpending
358	522	x32	rt_sigtimedwait compat_sys_rt_sigtimedwait

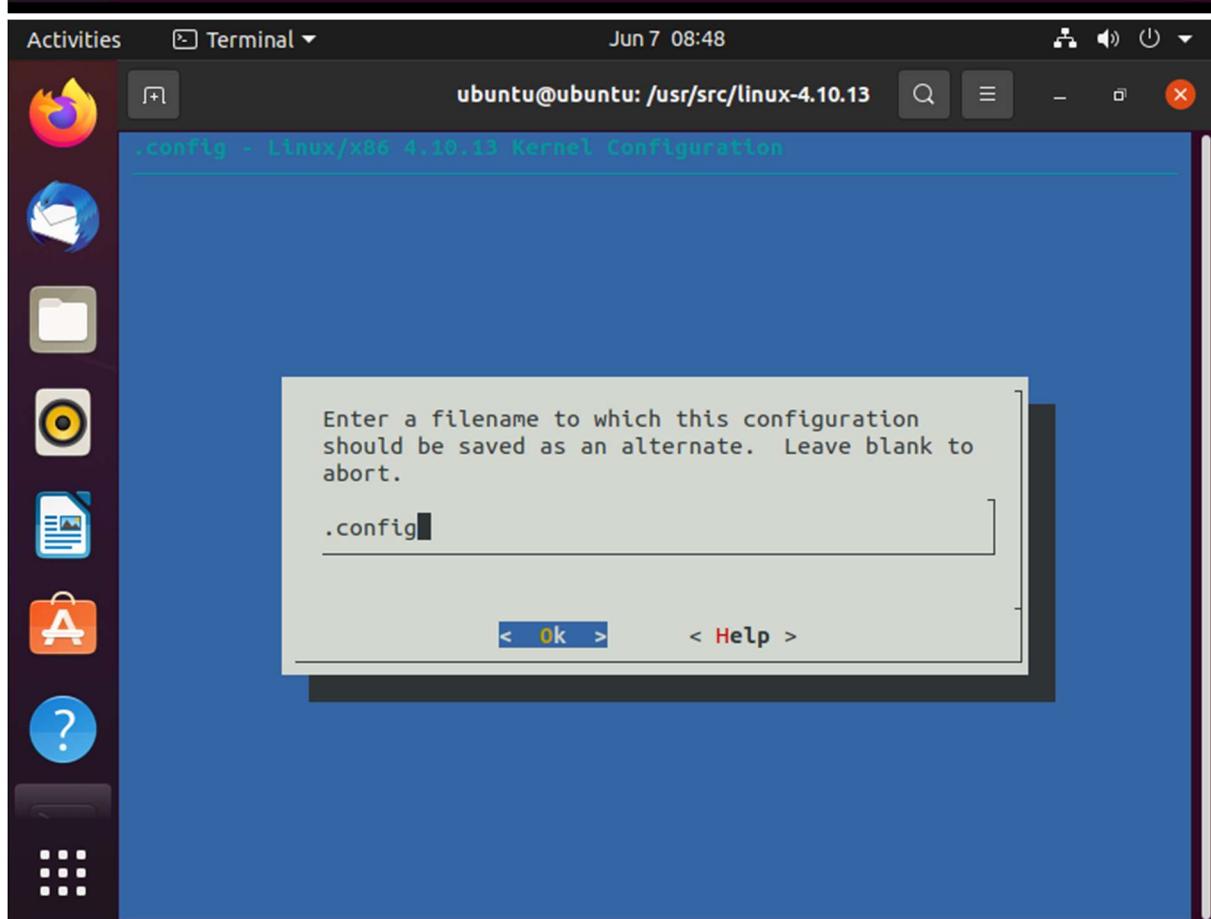
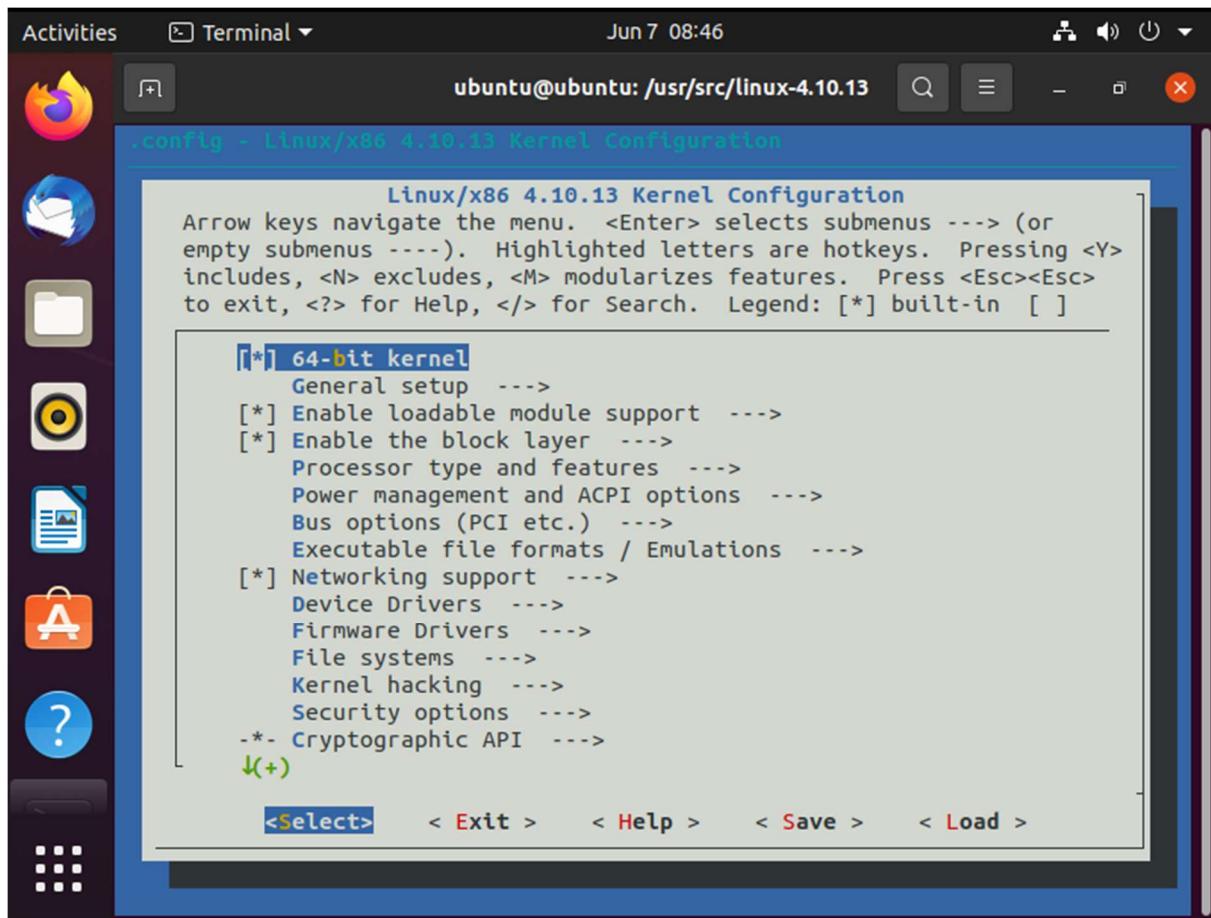
Plain Text Tab Width: 8 Ln 341, Col 55 INS

Activities Terminal Jun 6 12:53

root@ubuntu: /usr/src/linux-4.10.13/arch/x86/entry/syscalls Jun 6 12:53

root@ubuntu: ~ root@ubuntu: /usr/s... ubuntu@ubuntu: ~

```
root@ubuntu:/usr/src/linux-4.10.13# cd arch/x86/entry/syscalls
root@ubuntu:/usr/src/linux-4.10.13/arch/x86/entry/syscalls# ls
Makefile syscall_32.tbl syscall_64.tbl syscallhdr.sh syscalltbl.sh
root@ubuntu:/usr/src/linux-4.10.13/arch/x86/entry/syscalls# gedit syscall_64.tbl
(gedit:41557): Tepl-WARNING **: 12:51:54.279: GVfs metadata is not supported. Fall back to TeplMetadataManager. Either GVfs is not correctly installed or GVfs metadata are not supported on this platform. In the latter case, you should configure Tepl with --disable-gvfs-metadata.
root@ubuntu:/usr/src/linux-4.10.13/arch/x86/entry/syscalls# #332 in index of our system call
root@ubuntu:/usr/src/linux-4.10.13/arch/x86/entry/syscalls#
```



Activities Terminal Jun 7 08:49

```
A_TAG_TRAILER
/boot/config-5.8.0-55-generic:3989:warning: symbol value 'm' invalid for JOYSTI
CK_IFORCE_USB
/boot/config-5.8.0-55-generic:3990:warning: symbol value 'm' invalid for JOYSTI
CK_IFORCE_232
/boot/config-5.8.0-55-generic:4274:warning: symbol value 'm' invalid for SERIAL
_LANTIQ
/boot/config-5.8.0-55-generic:4630:warning: symbol value 'm' invalid for GPIO_M
B86S7X
/boot/config-5.8.0-55-generic:5763:warning: symbol value 'm' invalid for RADIO_
SI470X
/boot/config-5.8.0-55-generic:6433:warning: symbol value 'm' invalid for FB_BAC
KLIGHT
/boot/config-5.8.0-55-generic:8467:warning: symbol value 'm' invalid for ASHMEM
/boot/config-5.8.0-55-generic:9474:warning: symbol value 'm' invalid for ANDROI
D_BINDER_IPC

A *** End of the configuration.
*** Execute 'make' to start the build or try 'make help'.

ubuntu@ubuntu:/usr/src/linux-4.10.13$ sudo make oldconfig
HOSTCC scripts/kconfig/conf.o
HOSTLD scripts/kconfig/conf
scripts/kconfig/conf --oldconfig Kconfig
#
# configuration written to .config
#
ubuntu@ubuntu:/usr/src/linux-4.10.13$
```

Activities Terminal Jun 7 09:13

```
rm: cannot remove './scripts/kconfig/.mconf.o.cmd': Permission denied
rm: cannot remove './scripts/kconfig/lxdialog/inputbox.o': Permission denied
rm: cannot remove './scripts/kconfig/lxdialog/checklist.o': Permission denied
rm: cannot remove './scripts/kconfig/lxdialog/.menubox.o.cmd': Permission denied
rm: cannot remove './scripts/kconfig/lxdialog/util.o': Permission denied
rm: cannot remove './scripts/kconfig/lxdialog/.inputbox.o.cmd': Permission denied
rm: cannot remove './scripts/kconfig/lxdialog/menubox.o': Permission denied
rm: cannot remove './scripts/kconfig/lxdialog/textbox.o': Permission denied
rm: cannot remove './scripts/kconfig/lxdialog/.checklist.o.cmd': Permission denied
rm: cannot remove './scripts/kconfig/lxdialog/.util.o.cmd': Permission denied
rm: cannot remove './scripts/kconfig/lxdialog/.textbox.o.cmd': Permission denied
rm: cannot remove './scripts/kconfig/lxdialog/.yesno.o.cmd': Permission denied
rm: cannot remove './scripts/kconfig/lxdialog/yesno.o': Permission denied
rm: cannot remove './scripts/basic/.fixdep.cmd': Permission denied
make: *** [Makefile:1537: clean] Error 123
ubuntu@ubuntu:/usr/src/linux-4.10.13$ sudo make clean
[sudo] password for ubuntu:
ubuntu@ubuntu:/usr/src/linux-4.10.13$ sudo make mrproper
CLEAN scripts/basic
CLEAN scripts/kconfig
ubuntu@ubuntu:/usr/src/linux-4.10.13$ sudo make menuconfig
HOSTCC scripts/basic/fixdep
HOSTCC scripts/kconfig/mconf.o
SHIPPED scripts/kconfig/zconf.tab.c
SHIPPED scripts/kconfig/zconf.lex.c
```

```
*** End of the configuration.  
*** Execute 'make' to start the build or try 'make help'.  
  
ubuntu@ubuntu:/usr/src/linux-4.10.13$ sudo make oldconfig  
HOSTCC scripts/kconfig/conf.o  
HOSTLD scripts/kconfig/conf  
scripts/kconfig/conf --oldconfig Kconfig  
#  
# configuration written to .config  
#  
ubuntu@ubuntu:/usr/src/linux-4.10.13$  
  
ubuntu@ubuntu:/usr/src/linux-5.8.1$ cd ..  
ubuntu@ubuntu:/usr/src$ ls  
linux-4.10.13 linux-headers-5.8.0-43-generic linux-hwe-5.8-headers-5.8.0-43  
linux-5.8.1 linux-headers-5.8.0-55-generic linux-hwe-5.8-headers-5.8.0-55  
ubuntu@ubuntu:/usr/src$ cd linux-4.10.13  
ubuntu@ubuntu:/usr/src/linux-4.10.13$ sudo make menuconfig  
scripts/kconfig/mconf Kconfig  
  
*** End of the configuration.  
*** Execute 'make' to start the build or try 'make help'.  
  
ubuntu@ubuntu:/usr/src/linux-4.10.13$ sudo make oldconfig  
scripts/kconfig/conf --oldconfig Kconfig  
#  
# configuration written to .config  
#  
ubuntu@ubuntu:/usr/src/linux-4.10.13$
```

```
Activities Terminal ▾ Jun 8 08:25  
ubuntu@ubuntu: /usr/src/linux-4.10.13  
root@ubuntu: /home  
ubuntu@ubuntu: /usr/src/linux-4.10.13  
  
CHK include/generated/timeconst.h  
CHK include/generated/bounds.h  
CHK include/generated/asm-offsets.h  
CALL scripts/checksyscalls.sh  
DESCEND objtool  
CC /usr/src/linux-4.10.13/tools/objtool/pager.o  
pager.c: In function 'pager_preeexec':  
pager.c:35:12: error: passing argument 2 to restrict-qualified parameter aliase  
s with argument 4 [-Werror=restrict]  
35 | select(1, &in, NULL, &in, NULL);  
| ^~~ ~~~  
cc1: all warnings being treated as errors  
mv: cannot stat '/usr/src/linux-4.10.13/tools/objtool/.pager.o.tmp': No such fi  
le or directory  
make[4]: *** [/usr/src/linux-4.10.13/tools/build/Makefile.build:92: /usr/src/li  
nux-4.10.13/tools/objtool/pager.o] Error 1  
make[3]: *** [Makefile:45: /usr/src/linux-4.10.13/tools/objtool/libsubcmd-in.o]   
Error 2  
make[2]: *** [Makefile:59: /usr/src/linux-4.10.13/tools/objtool/libsubcmd.a] Er  
ror 2  
make[1]: *** [Makefile:61: objtool] Error 2  
make: *** [Makefile:1614: tools/objtool] Error 2  
ubuntu@ubuntu:/usr/src/linux-4.10.13$
```