NAME

Intro, intro – introduction to special files

DESCRIPTION

This section describes various device and network interfaces available on the system. The types of interfaces described include character and block devices, STREAMS modules, network protocols, file systems, and ioctl requests for driver subsystems and classes.

This section contains the following major collections:

(7D) The system provides drivers for a variety of hardware devices, such as disk, magnetic tapes, serial communication lines, mice, and frame buffers, as well as virtual devices such as pseudo-terminals and windows.

This section describes special files that refer to specific hardware peripherals and device drivers. STREAMS device drivers are also described. Characteristics of both the hardware device and the corresponding device driver are discussed where applicable.

An application accesses a device through that device's special file. This section specifies the device special file to be used to access the device as well as application programming interface (API) information relevant to the use of the device driver.

All device special files are located under the **/devices** directory. The **/devices** directory hierarchy attempts to mirror the hierarchy of system busses, controllers, and devices configured on the system. Logical device names for special files in **/devices** are located under the **/dev** directory. Although not every special file under **/devices** will have a corresponding logical entry under **/dev**, whenever possible, an application should reference a device using the logical name for the device. Logical device names are listed in the **FILES** section of the page for the device in question.

This section also describes driver configuration where applicable. Many device drivers have a driver configuration file of the form *driver_name***.conf** associated with them (see **driver.conf**(4)). The configuration information stored in the driver configuration file is used to configure the driver and the device. Driver configuration files are located in **/kernel/drv** and **/usr/kernel/drv**. Driver configuration files for platform dependent drivers are located in **/platform/'uname -i'/kernel/drv** where **'uname -i'** is the output of the **uname**(1) command with the **-i** option.

Some driver configuration files may contain user configurable properties. Changes in a driver's configuration file will not take effect until the system is rebooted or the driver has been removed and re-added (see **rem_drv**(1M) and **add_drv**(1M)).

(7FS) This section describes the programmatic interface for several file systems supported by SunOS.

(7I) This section describes ioctl requests which apply to a class of drivers or subsystems. For example, ioctl requests which apply to most tape devices are discussed in **mtio**(7I). Ioctl requests relevant to only a specific device are described on the man page for that device. The page for the device in question should still be examined for exceptions to the ioctls listed in section 7I.

(7M) This section describes STREAMS modules. Note that STREAMS drivers are discussed in section 7D. **streamio**(7I) contains a list of ioctl requests used to manipulate STREAMS modules and interface with the STREAMS framework. Ioctl requests specific to a STREAMS module will be discussed on the man page for that module.

(7P) This section describes various network protocols available in SunOS.

SunOS supports both socket-based and STREAMS-based network communications. The Internet protocol family, described in **inet**(7P), is the primary protocol family supported by SunOS, although the system can support a number of others. The raw interface provides low-level services, such as packet fragmentation and reassembly, routing, addressing, and basic transport for socket-based implementations. Facilities for communicating using an Internet-family protocol are generally accessed by specifying the **AF_INET** address family when binding a socket; see **socket**(3N) for details.

Major protocols in the Internet family include:

- The Internet Protocol (IP) itself, which supports the universal datagram format, as described in **ip**(7P). This is the default protocol for **SOCK_RAW** type sockets within the **AF_INET** domain.
- The Transmission Control Protocol (TCP); see **tcp**(7P). This is the default protocol for **SOCK_STREAM** type sockets.
- The User Datagram Protocol (UDP); see **udp**(4P). This is the default protocol for **SOCK_DGRAM** type sockets.
- The Address Resolution Protocol (ARP); see **arp**(7P).
- The Internet Control Message Protocol (ICMP); see **icmp**(7P).

SEE ALSO

add_drv(1M), **rem_drv**(1M), **intro**(2), **ioctl**(2), **socket**(3N), **driver.conf**(4), **arp**(7P), **icmp**(7P), **inet**(7P), **ip**(7P), **mtio**(7I), **st**(7D), **streamio**(7I), **tcp**(7P), **udp**(7P)

Solaris 1.x to Solaris 2.x Transition Guide

TCP/IP and Data Communications Guide

STREAMS Programming Guide

Writing Device Drivers

Name	**Description**
adp(7D)	low-level module for Adaptec 7870/7871/7872 based SCSI controllers
aha(7D)	low-level module for Adaptec 154x ISA host bus adapters
aic(7D)	low-level module for Adaptec AIC-6360 based ISA host bus adapters
arp(7P)	Address Resolution Protocol
ARP(7P)	See **arp**(7P)
asy(7D)	asynchronous serial port driver
ata(7D)	AT attachment disk driver
audio(7I)	generic audio device interface
audioamd(7D)	telephone quality audio device
audiocs(7D)	Crystal Semiconductor 4231 audio Interface
bd(7M)	SunButtons and SunDials STREAMS module
be(7D)	BigMAC Fast Ethernet device driver
bpp(7D)	bi-directional parallel port driver
bufmod(7M)	STREAMS Buffer Module
bwtwo(7D)	black and white memory frame buffer
cdio(7I)	CD-ROM control operations
cgeight(7D)	24-bit color memory frame buffer
cgfour(7D)	P4-bus 8-bit color memory frame buffer
cgfourteen(7D)	24-bit color graphics device
cgsix(7D)	accelerated 8-bit color frame buffer
cgthree(7D)	8-bit color memory frame buffer
cgtwo(7D)	color graphics interface
cmdk(7D)	common disk driver
connld(7M)	line discipline for unique stream connections
console(7D)	STREAMS-based console interface
corvette(7D)	low-level module for IBM Micro Channel SCSI-2 Fast/Wide Adapter/A
csa(7D)	low-level module for Compaq SMART SCSI Array Controller
dbri(7D)	Dual Basic Rate ISDN and audio Interface
display(7D)	system console display

dkio(7I)	disk control operations
dlpi(7P)	Data Link Provider Interface
dnet(7D)	Ethernet driver for D-Link DE-530CT, SMC EtherPower 8432BT, Znyx312, Cogent EM960, Cogent EM100
dpt(7D)	DPT 2011, 2012, 2021, 2022, 2122, 2024, 2124, 3021, 3222, and 3224 controllers
dsa(7D)	low-level module for Dell SCSI Array Controller (DSA)
eepro(7D)	Intel EtherExpress-Pro Ethernet device driver
eha(7D)	low-level module for Adaptec 174x EISA host bus adapter
el(7D)	3COM 3C503 Ethernet device driver
elink(7D)	3COM 3C507 Ethernet device driver
elx(7D)	3COM EtherLink III Ethernet device driver
esa(7D)	low-level module for Adaptec 7770 based SCSI controllers
esp(7D)	ESP SCSI Host Bus Adapter Driver
fbio(7I)	frame buffer control operations
fd(7D)	drivers for floppy disks and floppy disk controllers
fdc(7D)	See **fd**(7D)
fdio(7I)	floppy disk control operations
gld(7D)	Generic LAN Driver
hdio(7I)	SMD and IPI disk control operations
hsfs(7FS)	High Sierra & ISO 9660 CD-ROM filesystem
icmp(7P)	Internet Control Message Protocol
ICMP(7P)	See **icmp**(7P)
id(7D)	See **ipi**(7D)
ie(7D)	Intel 82586 Ethernet device driver
iee(7D)	Intel EtherExpress 16 Ethernet device driver
ieef(7D)	Intel EtherExpress Flash32/82596 Ethernet device driver
if(7P)	See **if_tcp**(7P)
if_tcp(7P)	general properties of Internet Protocol network interfaces
inet(7P)	Internet protocol family
ip(7P)	Internet Protocol

IP(7P)	See **ip**(7P)
ipd(7M)	See **ppp**(7M)
ipdcm(7M)	See **ppp**(7M)
ipdptp(7M)	See **ppp**(7M)
ipi(7D)	IPI driver
ipi3sc(7D)	See **ipi**(7D)
is(7D)	See **ipi**(7D)
isdnio(7I)	ISDN interfaces
isp(7D)	ISP SCSI Host Bus Adapter Driver
iss(7D)	low-level module for Tricord System's SCSI host bus adapter
kb(7M)	keyboard STREAMS module
kdmouse(7D)	built-in mouse device interface
keyboard(7D)	system console keyboard
kmem(7D)	See **mem**(7D)
kstat(7D)	kernel statistics driver
ksyms(7D)	kernel symbols
ldterm(7M)	standard STREAMS terminal line discipline module
le(7D)	Am7990 (LANCE) Ethernet device driver
lebuffer(7D)	See **le**(7D)
ledma(7D)	See **le**(7D)
leo(7D)	double-buffered 24-bit SBus color frame buffer and graphics accelerator
llc1(7D)	Logical Link Control Protocol Class 1 Driver
lofs(7FS)	loopback virtual file system
log(7D)	interface to STREAMS error logging and event tracing
logi(7D)	LOGITECH Bus Mouse device interface
lp(7D)	driver for parallel port
mcis(7D)	low-level module for IBM MicroChannel host bus adapter
mcpp(7D)	ALM-2 Parallel Printer port driver
mcpzsa(7D)	ALM-2 Zilog 8530 SCC serial communications driver
mem(7D)	physical or virtual memory
mlx(7D)	low-level module for Mylex DAC960 EISA and IBM

	DMC960 Micro Channel host bus adapter series
msm(7D)	Microsoft Bus Mouse device interface
mt(7D)	tape interface
mtio(7I)	general magnetic tape interface
ncrs(7D)	low-level module for NCR 53C710, 53C810, 53C815, 53C820, and 53C825 host bus adapters
nee(7D)	Novell NE3200 Ethernet device Driver
nei(7D)	Novell NE2000, NE2000plus Ethernet device Driver
nfe(7D)	Compaq Netflex-2 Dualport Ethernet and ENET/TR Drivers
null(7D)	the null file
openprom(7D)	PROM monitor configuration interface
pcelx(7D)	3COM EtherLink III PCMCIA Ethernet Adapter
pcfs(7FS)	DOS formatted file system
PCFS(7FS)	See **pcfs**(7FS)
pcic(7D)	Intel i82365SL PC Card Interface Controller
pckt(7M)	STREAMS Packet Mode module
pcmem(7D)	PCMCIA memory card nexus driver
pcn(7D)	AMD PCnet Ethernet controller device driver
pcram(7D)	PCMCIA RAM memory card device driver
pcscsi(7D)	low-level module for the AMD PCscsi, PCscsi II, and PCnet-SCSI PCI-to-SCSI bus adapters
pcser(7D)	PCMCIA serial card device driver
pe(7D)	Xircom Pocket Ethernet device driver
pfmod(7M)	STREAMS Packet Filter Module
pipemod(7M)	STREAMS pipe flushing module
pln(7D)	SPARCstorage Array SCSI Host Bus Adapter Driver
pn(7D)	See **ipi**(7D)
ppp(7M)	STREAMS modules and drivers for the Point-to-Point Protocol
ppp_diag(7M)	See **ppp**(7M)
ptem(7M)	STREAMS Pseudo Terminal Emulation module
ptm(7D)	STREAMS pseudo-tty master driver
pts(7D)	STREAMS pseudo-tty slave driver
pty(7D)	pseudo-terminal driver
qe(7D)	QEC/MACE Ethernet device driver

tr(7D)	IBM 16/4 Token Ring Network Adapter device driver
trantor(7D)	low-level module for Trantor T348 Parallel SCSI host bus adapter
ttcompat(7M)	V7, 4BSD and XENIX STREAMS compatibility module
tty(7D)	controlling terminal interface
udp(7P)	Internet User Datagram Protocol
UDP(7P)	See **udp**(7P)
visual_io(7I)	Solaris VISUAL I/O control operations
volfs(7FS)	Volume Management file system
vuid2ps2(7M)	See **vuidmice**(7M)
vuid3ps2(7M)	See **vuidmice**(7M)
vuidm3p(7M)	See **vuidmice**(7M)
vuidm4p(7M)	See **vuidmice**(7M)
vuidm5p(7M)	See **vuidmice**(7M)
vuidmice(7M)	converts mouse protocol to Firm Events
wscons(7D)	workstation console
xd(7D)	disk driver for Xylogics 7053 SMD Disk Controller
xdc(7D)	See **xd**(7D)
xt(7D)	driver for Xylogics 472 1/2 inch tape controller
xy(7D)	disk driver for Xylogics 450 and 451 SMD Disk Controllers
xyc(7D)	See **xy**(7D)
zero(7D)	source of zeroes
zs(7D)	Zilog 8530 SCC serial communications driver
zsh(7D)	On-board serial HDLC/SDLC interface