



# IT Administrator

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Linux: informazioni ed impostazioni



# Ottenere informazioni

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- Si possono ottenere informazioni in vari modi:
  - Programmi di installazione che verificano l'hardware disponibile
  - Filesystem /proc che mantiene le informazioni necessarie al sistema
  - Interfaccia grafica: in KDE c'è il KDE Info Center
  - Specifici programmi



# Ottenere informazioni

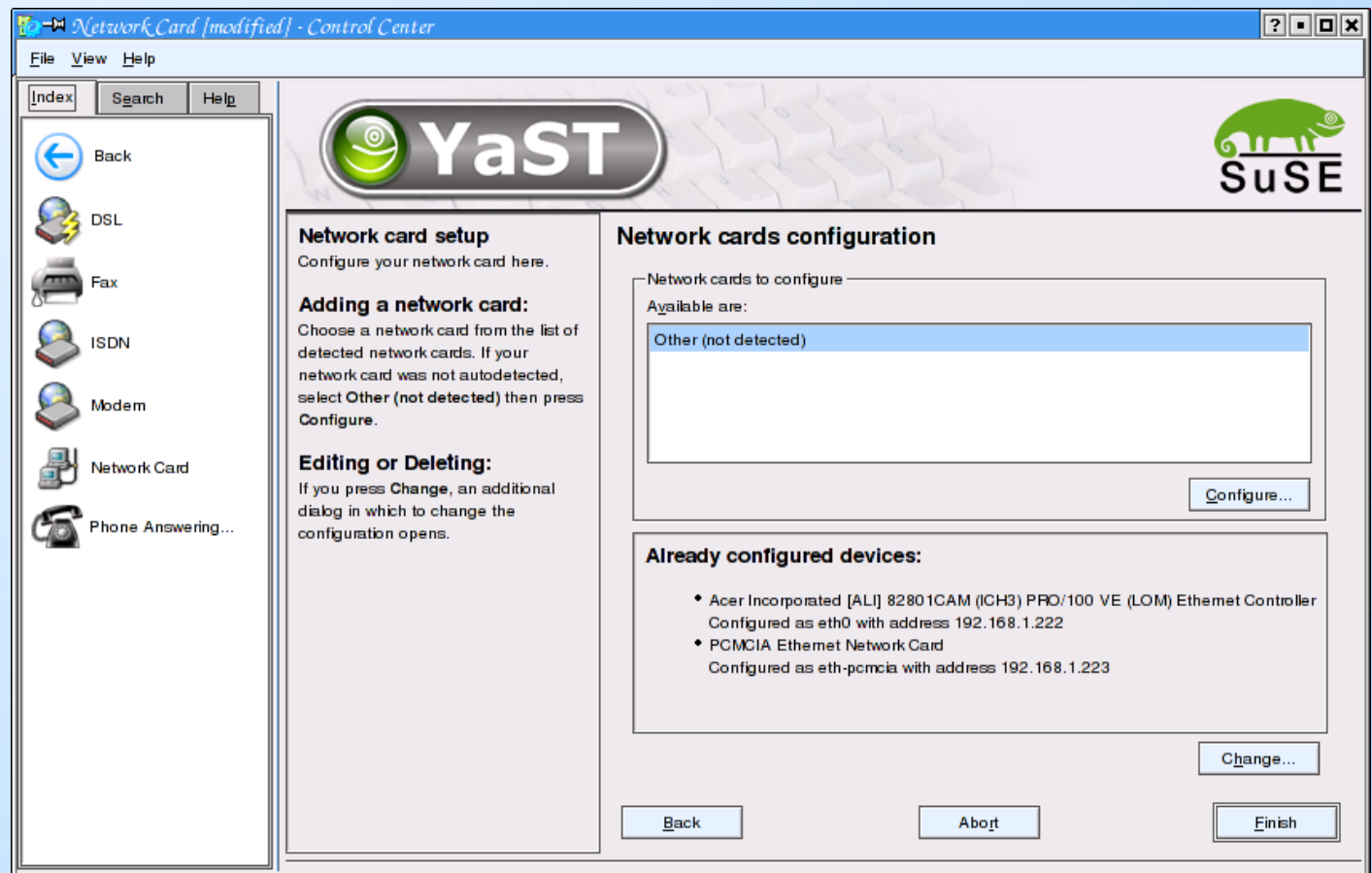
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- Programmi di installazione che verificano l'hardware disponibile
  - Gestione rete
  - Schede audio
  - Stampanti



# Ottenere informazioni

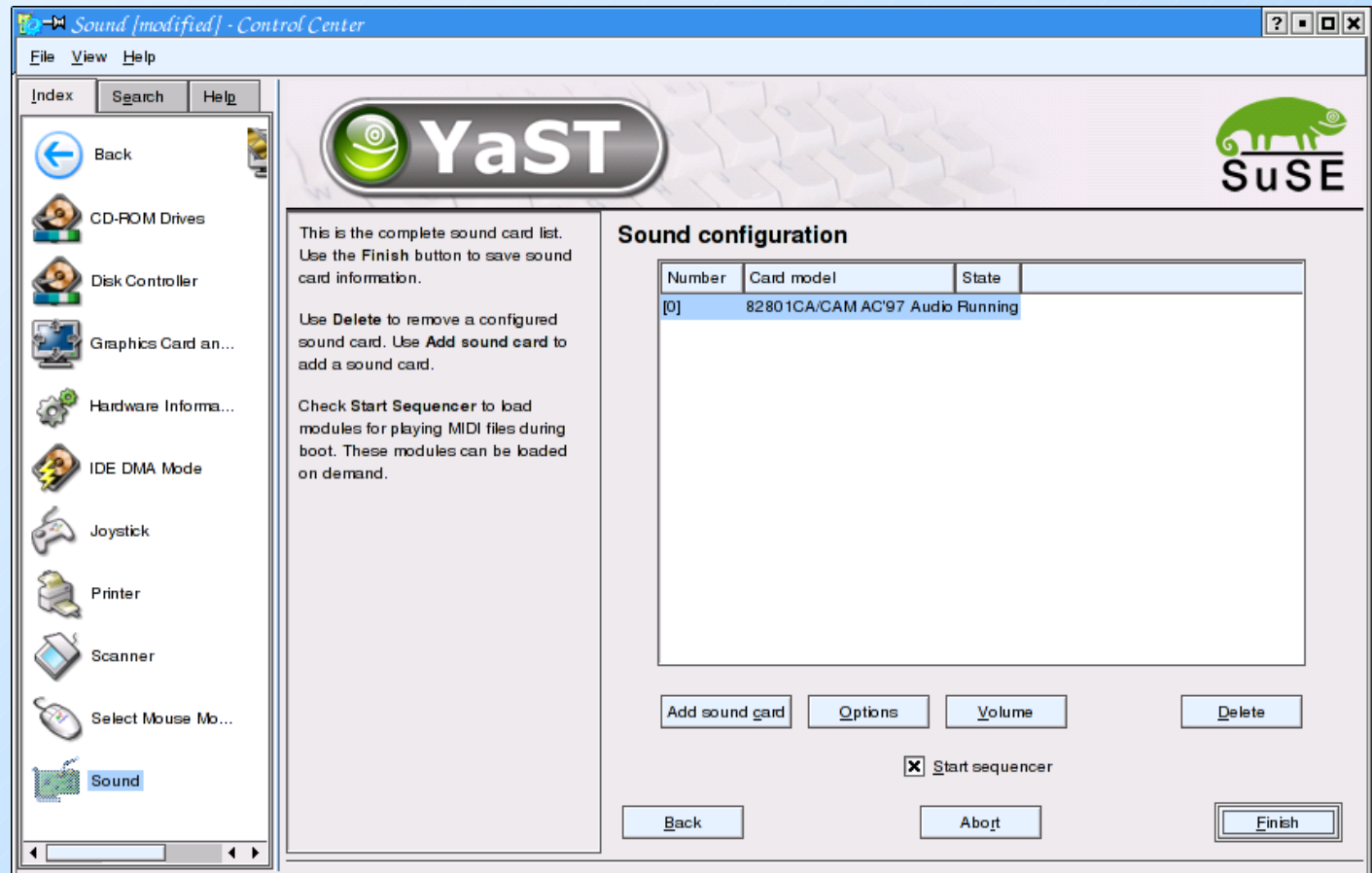
- Gestione rete





# Ottenere informazioni

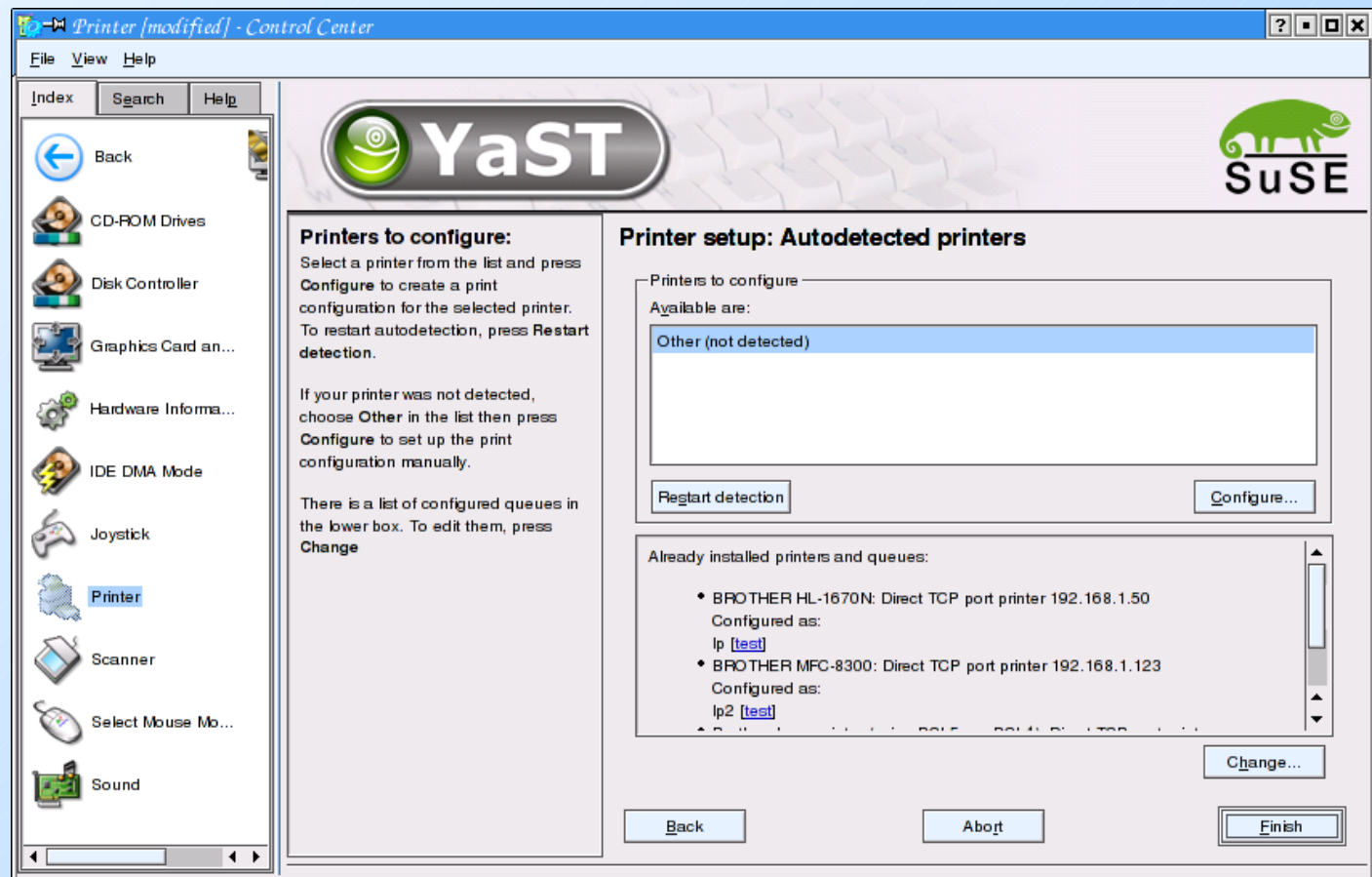
- Audio





# Ottenere informazioni

- Stampanti





# Ottenere informazioni

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- Filesystem /proc che mantiene le informazioni necessarie al sistema
  - Non solo hardware ma anche software
  - Non solo in lettura ma anche in scrittura per modificare il funzionamento del sistema



# Ottenere informazioni

- Filesystem /proc

```
Shell - Konsole <4>
wisdom:~ # ls /proc
.          1630 2034 2139 2170 2228 2610 2869 9      execdomains  loadavg  self
..         1658 2041 2140 2171 2229 2611 2870 acpi    fb          locks    slabinfo
1          1967 2076 2142 2172 2231 2612 2908 asound  filesystems mdstat   splash
1020       1970 2102 2144 2174 2252 2613 3      buddyinfo  fs        meminfo  stat
1045       1972 2105 2147 2176 2253 2686 4      bus        ide        misc     swaps
1185       2    2108 2149 2177 2255 2687 5      cmdline   interrupts modules   sys
12         2024 2111 2153 2178 2266 2693 6      config.gz iomem      mounts    sysvipc
1346       2025 2118 2156 2191 2291 2735 7      cpufreq   ioports    mtrr      tty
1519       2026 2120 2162 2192 2511 2757 727   cpuinfo   irq        net        uptime
1566       2027 2132 2163 2220 2512 2772 733   devices  kcore      partitions version
1587       2028 2134 2168 2226 2597 2773 768   dma       kmsg       pci        video
1614       2029 2137 2169 2227 2609 2774 794   driver    ksyms      scsi       umnet

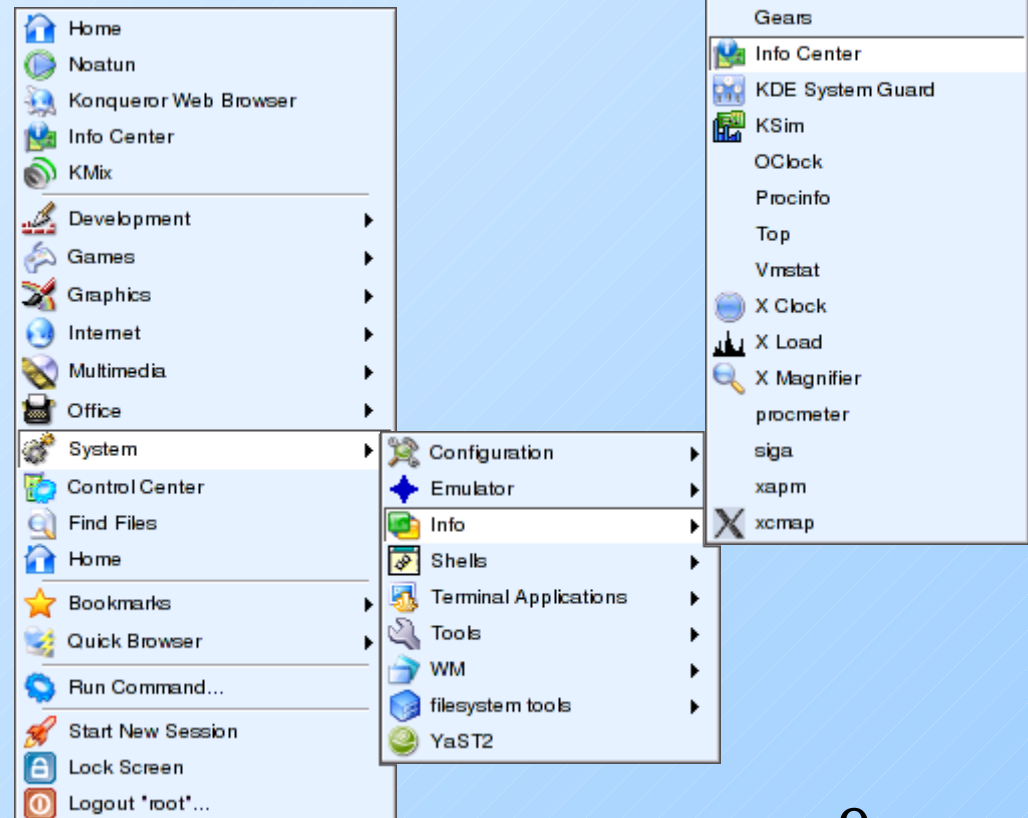
wisdom:~ # cat /proc/cpuinfo
processor       : 0
vendor_id     : GenuineIntel
cpu family    : 15
model         : 2
model name    : Intel(R) Pentium(R) 4 CPU 2.00GHz
stepping      : 4
cpu MHz       : 1994.128
cache size    : 512 KB
fdiv_bug     : no
hlt_bug      : no
f00f_bug     : no
coma_bug     : no
fpu          : yes
fpu_exception : yes
cpuid level   : 2
wp           : yes
flags        : fpu_ume de pse tsc msr pae mce cx8 sep mtrr pge mca cmov pat pse36 clflush
dts acpi mmx fxsr sse sse2 ss ht tm
bogomips     : 3971.48
```





# Ottenere informazioni

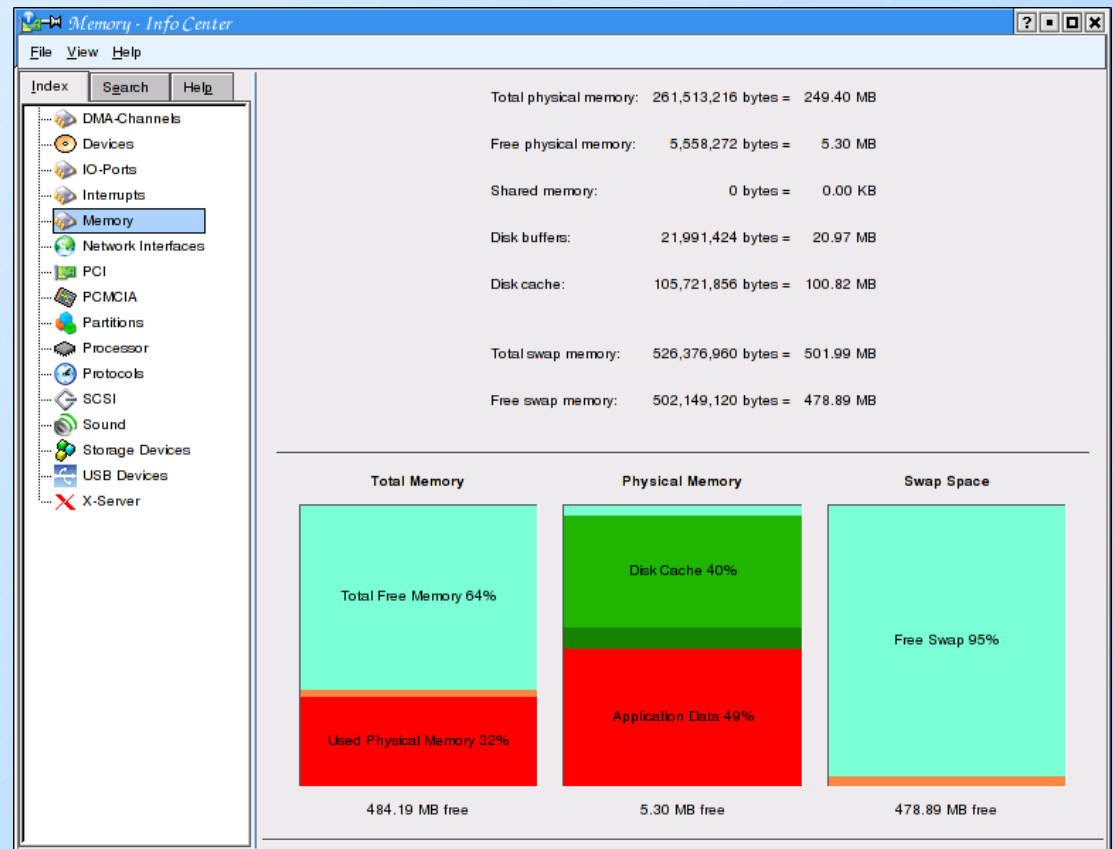
- Interfaccia grafica
  - in KDE c'è KDE Info Center
    - Non sempre banale da trovare
    - Estremamente semplice da consultare





# Ottenere informazioni

- KDE Info Center





# Ottenere informazioni

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- Programmi specifici
  - Lista dei moduli (lsmod)
  - Processi attivi (ps afuxwww)
  - Performance di sistema (top)
  - Disco libero / occupato (df, du)
  - Configurazione scheda di rete (ifconfig)
  - Configurazione delle route (route)



# Ottenere informazioni

- Lista dei moduli (lsmod)

```
Shell - Konsole <2>
wisdom:~ # lsmod
Module                Size  Used by    Tainted: PF
lp                    6240    0 (autoclean)
parport_pc            25800    1
parport               22440    1 [lp parport_pc]
isa-pnp              29672    0 (unused)
ipov6                134516  -1 (autoclean)
snd-pcm-oss           45888    1 (autoclean)
snd-mixer-oss         13560    1 (autoclean) [snd-pcm-oss]
videodev              5600    0 (autoclean)
usbserial             18460    0 (autoclean) (unused)
umnet                 19488    6
ummon                19636    0 (unused)
snd-intel8x0          19204    2
snd-pcm               62912    0 [snd-pcm-oss snd-intel8x0]
snd-timer             11904    0 [snd-pcm]
snd-ac97-codec        31152    0 [snd-intel8x0]
snd-mpu401-uart       3360    0 [snd-intel8x0]
snd-rawmidi           13824    0 [snd-mpu401-uart]
snd-seq-device         4000    0 [snd-rawmidi]
snd                   35940    0 [snd-pcm-oss snd-mixer-oss snd-intel8x0 snd-p
cm snd-timer snd-ac97-codec snd-mpu401-uart snd-rawmidi snd-seq-device]
soundcore             3396    0 [snd]
button                2380    0 (unused)
thermal              6020    0 (unused)
battery              5600    0 (unused)
processor             8184    0 [thermal]
```



# Ottenere informazioni

- Processi attivi (ps afuxwww)

```
wisdom:~ # ps afuxwww
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root         1  0.0  0.0   500    72 ?        S   15:51   0:04 init
root         2  0.0  0.0     0     0 ?        SW   15:51   0:00 [keventd]
root         3  0.0  0.0     0     0 ?        SWM  15:51   0:00 [ksoftirqd_CPU0]
root         4  0.0  0.0     0     0 ?        SW   15:51   0:00 [kswapd]
root         5  0.0  0.0     0     0 ?        SW   15:51   0:00 [bdf flush]
root         6  0.0  0.0     0     0 ?        SW   15:51   0:00 [kupdated]
root         7  0.0  0.0     0     0 ?        SW   15:51   0:00 [kinoded]
root         9  0.0  0.0     0     0 ?        SW   15:51   0:00 [mdrecovryd]
root        12  0.0  0.0     0     0 ?        SW   15:51   0:00 [kreiserfsd]
root        727  0.0  0.2  1456   572 ?        S   15:52   0:00 /sbin/syslogd
root        733  0.0  0.5  2304  1284 ?        S   15:52   0:00 /sbin/klogd -c 1 -2
root        768  0.0  0.0     0     0 ?        SW   15:52   0:00 [knodemgrd]
root        794  0.0  0.0     0     0 ?        SW   15:52   0:00 [khubd]
root       1020  0.0  0.1  1516   376 ?        S   15:52   0:00 /sbin/cardmgr -m /lib/modules/2.4.20-4GB/ -n pcmcia
root       1045  0.0  0.2  1548   616 ?        S   15:52   0:00 /sbin/resmgrd
root       1185  0.0  0.1  1372   456 ?        S   15:52   0:00 /usr/sbin/acpid
at         1519  0.0  0.1  1492   308 ?        S   15:52   0:00 /usr/sbin/atd
root       1566  0.0  0.2  1520   620 ?        S   15:52   0:00 /usr/sbin/cron
root       1587  0.0  0.0  1348   168 ?        S   15:52   0:00 /usr/bin/umnet-bridge -d /var/run/umnet-bridge-0.pid /dev/um
net0 eth0
root       1614  0.0  0.0  1348   168 ?        S   15:52   0:00 /usr/bin/umnet-netifup -d /var/run/umnet-netifup-umnet8.pid
/dev/umnet8 umnet8
root       1630  0.0  0.0  1348   168 ?        S   15:52   0:00 /usr/bin/umnet-netifup -d /var/run/umnet-netifup-umnet1.pid
/dev/umnet1 umnet1
root       1658  0.0  0.1  1556   384 ?        S   15:52   0:00 /usr/bin/umnet-natd -d /var/run/umnet-natd-8.pid -m /var/run
/umnet-natd-8.nac -c /etc/umware/umnet8/nat/nat.conf
root       1967  0.0  0.0  1580   232 ?        S   15:52   0:00 /usr/bin/umnet-dhcpd -cf /etc/umware/umnet1/dhcpd/dhcpd.conf
-lf /etc/umware/umnet1/dhcpd/dhcpd.leases -pf /var/run/umnet-dhcpd-umnet1.pid umnet1
root       1970  0.0  0.0  1580   232 ?        S   15:52   0:00 /usr/bin/umnet-dhcpd -cf /etc/umware/umnet8/dhcpd/dhcpd.conf
-lf /etc/umware/umnet8/dhcpd/dhcpd.leases -pf /var/run/umnet-dhcpd-umnet8.pid umnet8
root       1972  0.0  0.0  2392   108 ?        S   15:52   0:00 /opt/kde3/bin/kdm
root       2034  0.7  6.9 53148 17860 ?        R   15:52   1:16 \_ /usr/X11R6/bin/X vt7 -auth /var/lib/xdm/authdir/authfile
s/A:0-x3p0W0
root       2041  0.0  0.0  3208   128 ?        S   15:52   0:00 \_ -:0
root       2076  0.0  0.0  4468     4 ?        S   15:52   0:00 \_ /bin/sh /usr/X11R6/bin/kde
root       2137  0.0  0.0  1352    52 ?        S   15:53   0:00 \_ kwrapper ksmsrver
root       2024  0.0  0.0  1500     4 tty1    S   15:52   0:00 /sbin/mingetty --noclear tty1
root       2025  0.0  0.0  1500     4 tty2    S   15:52   0:00 /sbin/mingetty tty2
root       2026  0.0  0.0  1500     4 tty3    S   15:52   0:00 /sbin/mingetty tty3
root       2027  0.0  0.0  1500     4 tty4    S   15:52   0:00 /sbin/mingetty tty4
root       2028  0.0  0.0  1500     4 tty5    S   15:52   0:00 /sbin/mingetty tty5
```



# Ottenere informazioni

- Performance di sistema (top)

```
Shell - Konsole <2>
top - 18:55:27 up 3:03, 5 users, load average: 0.17, 0.13, 0.09
Tasks: 88 total, 2 running, 85 sleeping, 0 stopped, 1 zombie
Cpu(s): 1.0% user, 1.7% system, 0.0% nice, 97.4% idle
Mem: 255384k total, 241440k used, 13944k free, 19956k buffers
Swap: 514040k total, 24076k used, 489964k free, 94220k cached

  PID USER      PR  NI  VIRT  RES  SHR  S %CPU  %MEM    TIME+  Command
 3131 root        15   0 1004 1004  792 R   1.0   0.4   0:01.51 top
 2132 root       -51   0 5748 5744 4372 S   0.7   2.2   1:28.79 artsd
 2144 root        15   0 13028 12m  10m S   0.3   5.0   0:01.12 kdeinit
 2147 root        15   0 14804 14m  11m S   0.3   5.7   0:07.24 kdeinit
    1 root        15   0    84    72    48 S   0.0   0.0   0:04.94 init
    2 root        15   0     0     0     0 S   0.0   0.0   0:00.24 keventd
    3 root        34  19     0     0     0 S   0.0   0.0   0:00.01 ksoftirqd_CPU0
    4 root        15   0     0     0     0 S   0.0   0.0   0:00.36 kswapd
    5 root        25   0     0     0     0 S   0.0   0.0   0:00.00 bdfush
    6 root        15   0     0     0     0 S   0.0   0.0   0:00.00 kupdated
    7 root        15   0     0     0     0 S   0.0   0.0   0:00.03 kinoded
    9 root        25   0     0     0     0 S   0.0   0.0   0:00.00 mdrecoveryd
   12 root        15   0     0     0     0 S   0.0   0.0   0:00.02 kreiserfsd
   727 root        15   0    572   572   476 S   0.0   0.2   0:00.01 syslogd
   733 root        15   0   1284 1284   364 S   0.0   0.5   0:00.06 klogd
   768 root        22   0     0     0     0 S   0.0   0.0   0:00.00 knodemgrd
   794 root        22   0     0     0     0 S   0.0   0.0   0:00.00 khubd
  1020 root        22   0    492   376   316 S   0.0   0.1   0:00.00 cardmgr
  1045 root        15   0    620   616   528 S   0.0   0.2   0:00.00 resmgrd
```



# Ottenere informazioni

- Disco libero / occupato (df, du)

```
Shell - Konsole <2>
wisdom:~/IT-Admin # du -sk .
298493 .
wisdom:~/IT-Admin # df
Filesystem      1K-blocks      Used Available Use% Mounted on
/dev/hda2        28787596  19948652   8838944   70% /
shmfs            127692      0      127692    0% /dev/shm
wisdom:~/IT-Admin # df -T
Filesystem      Type      1K-blocks      Used Available Use% Mounted on
/dev/hda2 reiserfs  28787596  19948652   8838944   70% /
shmfs           shm       127692      0      127692    0% /dev/shm
wisdom:~/IT-Admin #
```



# Ottenere informazioni

- Configurazione scheda di rete (ifconfig)

```
Shell - Konsole <2>
wisdom:~ # ifconfig
eth0      Link encap:Ethernet  HWaddr 00:02:3F:AF:F3:AC
          inet addr:192.168.1.220  Bcast:192.168.1.255  Mask:255.255.255.0
          inet6 addr: fe80::202:3fff:feaf:f3ac/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:9014 errors:0 dropped:0 overruns:0 frame:0
          TX packets:7517 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:100
          RX bytes:5867056 (5.5 Mb)  TX bytes:1230232 (1.1 Mb)
          Interrupt:9 Base address:0x4000 Memory:e8205000-e8205038

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:3159 errors:0 dropped:0 overruns:0 frame:0
          TX packets:3159 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:2543980 (2.4 Mb)  TX bytes:2543980 (2.4 Mb)
```





# Ottenere informazioni

- Configurazione delle route (route)

```
Shell - Konsole <2>
wisdom:~ # route
Kernel IP routing table
Destination Gateway Genmask Flags Metric Ref Use Iface
172.16.34.0 * 255.255.255.0 U 0 0 0 0 vmnet8
192.168.1.0 * 255.255.255.0 U 0 0 0 0 eth0
172.16.90.0 * 255.255.255.0 U 0 0 0 0 vmnet1
default host1.intranet 0.0.0.0 UG 0 0 0 0 eth0
wisdom:~ #
```



# Impostare il sistema

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- Fasi coinvolte
  - Attivazione di un modulo
  - Configurazione di una scheda di rete
  - Configurazione di un modem
  - Configurazione della scheda audio
  - Configurazione di una stampante
  - Attivazione di un utente
  - Configurazione della tastiera



# Impostare il sistema

---

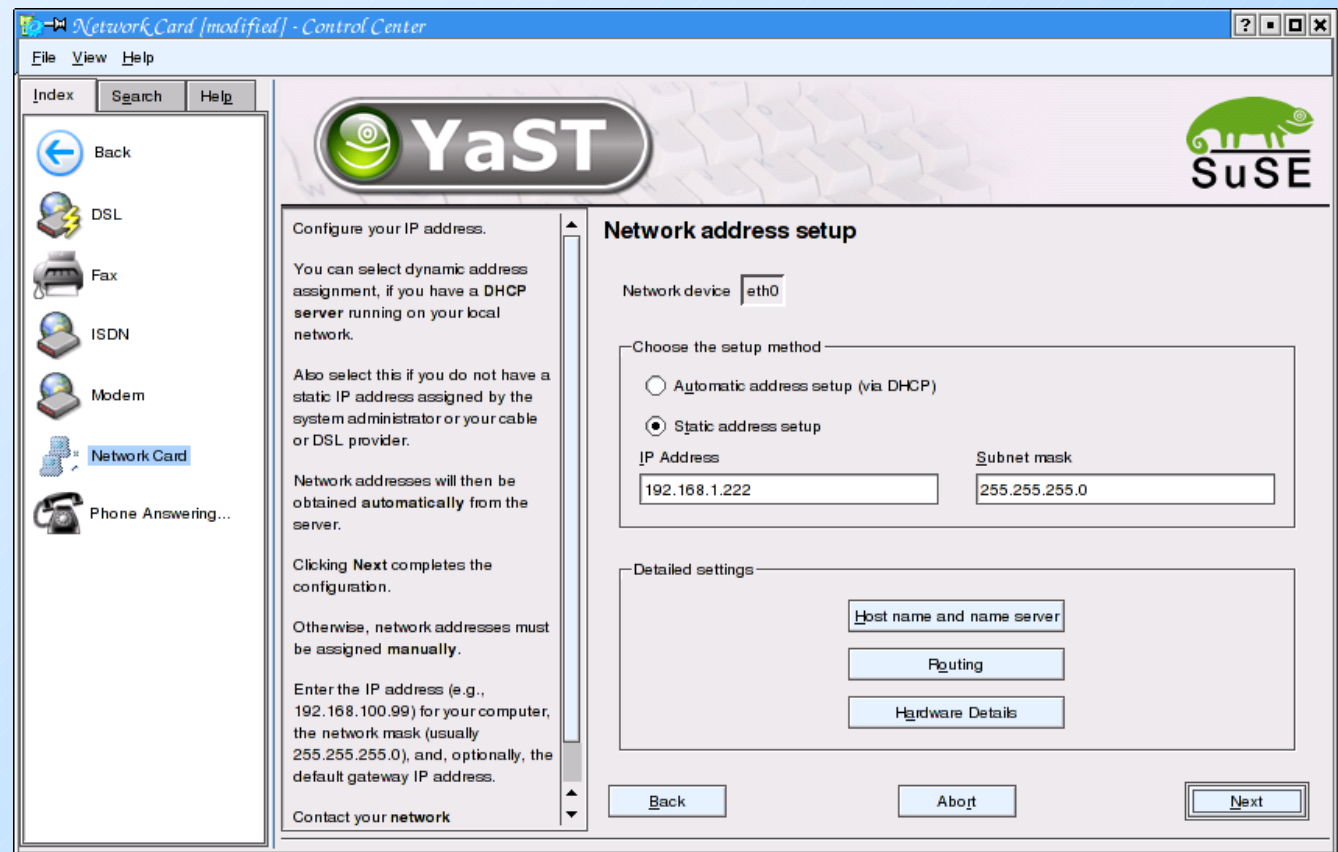
- Attivazione di un modulo

```
Shell - Konsole <2>
wisdom:~ # insmod sg
Using /lib/modules/2.4.20-4GB/kernel/drivers/scsi/sg.o
wisdom:~ # modprobe sg
wisdom:~ # echo $?
0
```



# Impostare il sistema

- Configurazione di una scheda di rete





# Impostare il sistema

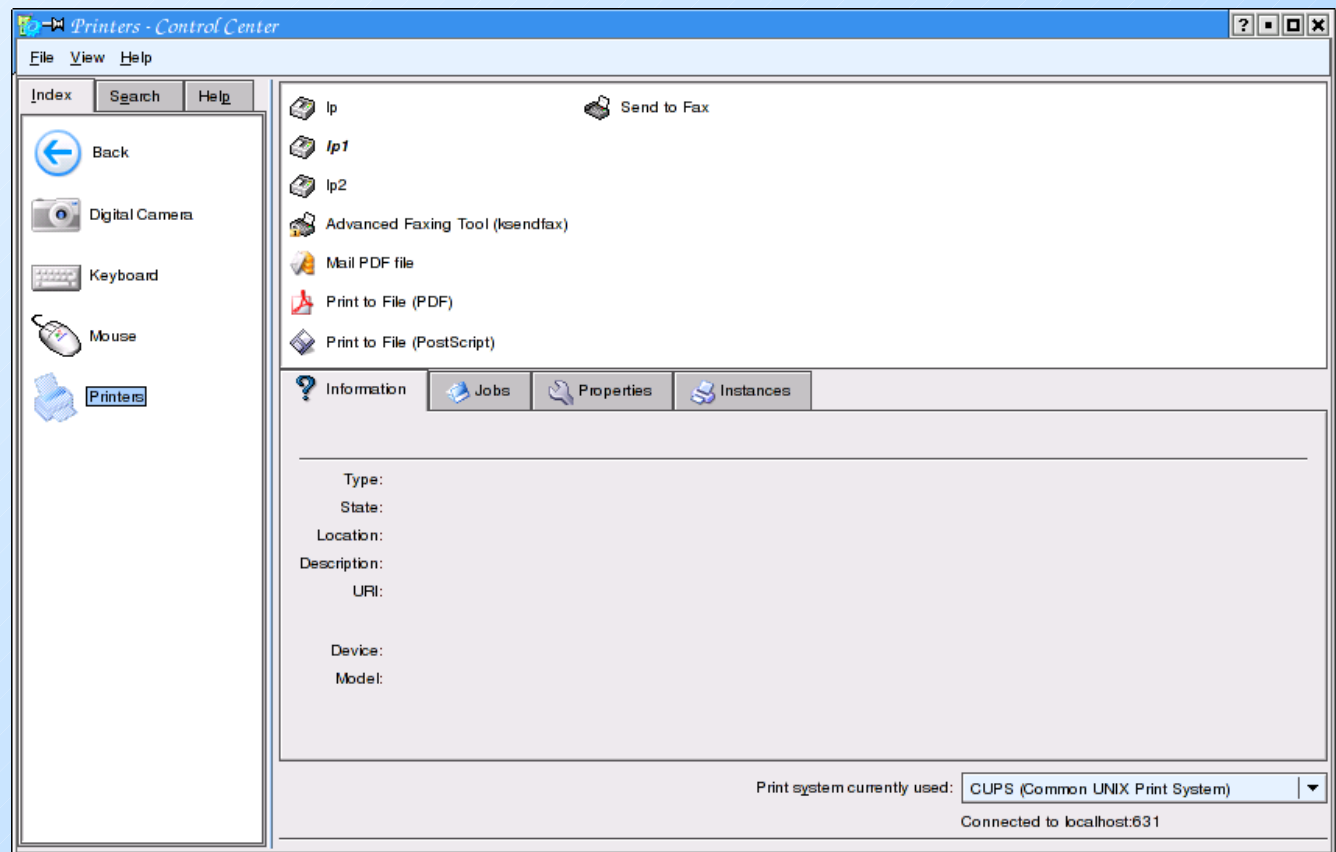
- Configurazione di un modem

```
Shell - Konsole <2>
wisdom:~ # cat /etc/wudial.conf
[Dialer Defaults]
Modem = /dev/modem
Baud = 57600
Init1 = ATZ;AT+CGDCONT=1,"IP",uni.tim.it,"";
Init2 =
Init3 =
Area Code =
Phone = *99***1#
Username = "      -"
Login Prompt = 0
Ask Password = 0
Password = "      -"
Dial Command = ATDT
Stupid Mode = 1
Compuserve = 0
Force Address =
Idle Seconds = 300
DialMessage1 =
DialMessage2 =
ISDN = 0
Auto DNS = 1
wisdom:~ #
```



# Impostare il sistema

- Configurazione di una stampante





# Impostare il sistema

- Attivazione di un utente

The screenshot shows the YaST Control Center window titled "Edit and create users [modified] - Control Center". The window has a menu bar with "File", "View", and "Help". Below the menu bar are tabs for "Index", "Search", and "Help". The left sidebar contains a "Back" button and four icons with labels: "Edit and create gr...", "Edit and create u...", "Firewall", and "Security settings". The main content area has a "YaST" logo at the top left and a "SuSE" logo at the top right. The title of the main content area is "Add a New Local User". The content area contains several text blocks and form fields:

If you fill out the fields (First Name and Last Name), a new user account is created for this name with the password given in the corresponding field.

When entering a password, you must distinguish between uppercase and lowercase. A password should have at least 5 characters and, as a rule, not contain any special characters (e.g., accented characters).

Valid password characters are letters, digits, blanks, and #\*.,:;\_~+!\$%&/'? [ ( ) ] =.

It's enough to use a password with a length of approximately 8 alpha-numeric characters. To ensure that the password was entered correctly, you are asked to repeat it exactly in a second field. Make sure you don't forget your password!

The User login is created from

Form fields:

- First Name:
- Last name:
- User login:
- Enter a password:
- Re-enter the password for verification:

Buttons at the bottom:

- 
-



# Impostare il sistema

- Configurazione della tastiera

