



**IKO31204**  
**Pemrograman Sistem**  
**Jilid 2: Administrasi Dasar**

Fakultas Ilmu Komputer - Universitas Indonesia  
Sep 2012

# topik

path

RTFM

shell

shell programming

# file path

absolute path

cth: (1) /bin/dmesg

relative path

cth: (1) cd /bin  
(2) ./dmesg

# binary search path

```
# export | grep PATH
```

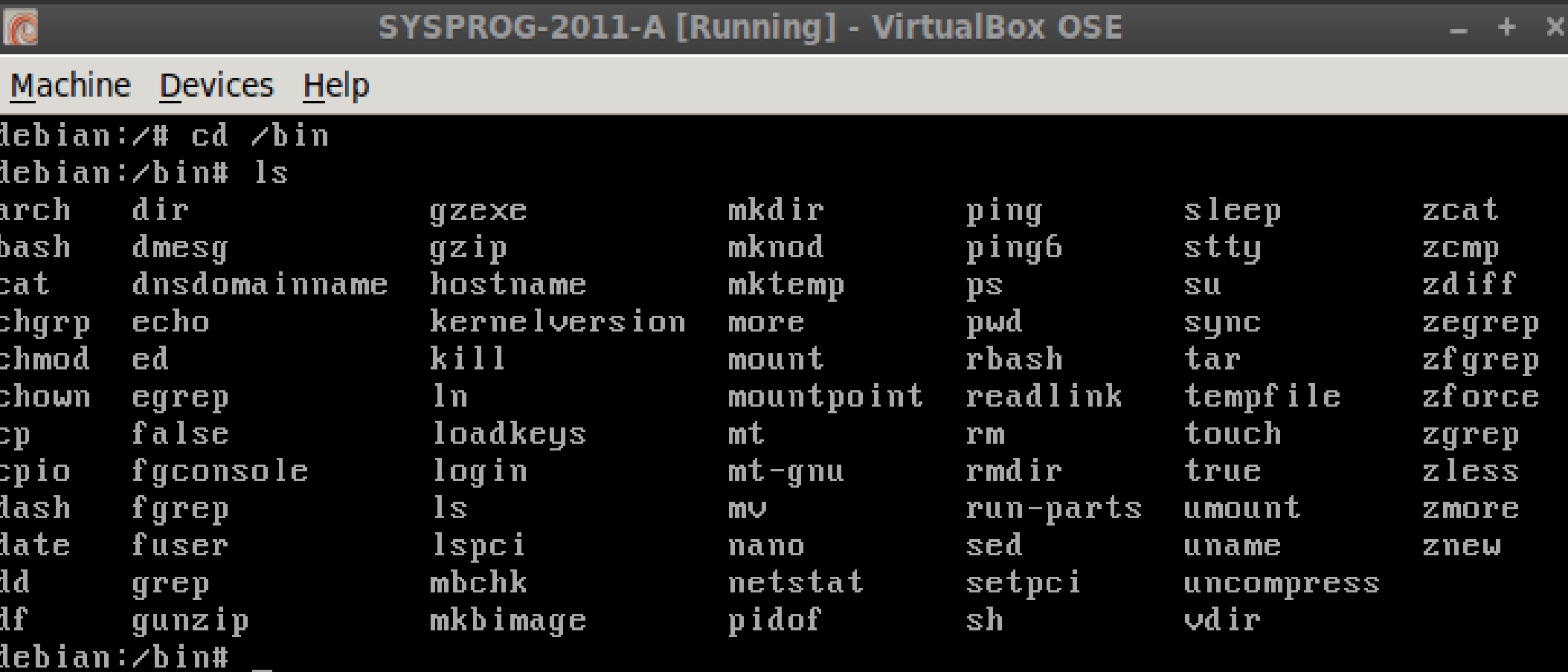
```
adin@rumah ~/svn-sysprog/MODUL_A2 $ export|grep PATH
declare -x DEFAULTS_PATH="/usr/share/gconf/gnome.default.path"
declare -x MANDATORY_PATH="/usr/share/gconf/gnome.mandatory.path"
declare -x PATH="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games"
declare -x WINDOWPATH="7"
adin@rumah ~/svn-sysprog/MODUL_A2 $
```

# perkakas dasar utk user

```
# cd /bin/
```

```
# ls
```

# /bin



```
SYSPROG-2011-A [Running] - VirtualBox OSE
Machine Devices Help
debian:/# cd /bin
debian:/bin# ls
arch      dir          gzexe       mkdir        ping        sleep       zcat
bash      dmesg       gzip        mknod       ping6       stty        zcmp
cat       dnsdomainname hostname     mktemp      ps          su          zdiff
chgrp    echo        kernelversion more         pwd         sync        zegrep
chmod    ed          kill        mount        rbash       tar         zfgrep
chown    egrep      ln          mountpoint  readlink    temp file  zforce
cp       false      loadkeys   mt           rm          touch       zgrep
cpio     fgconsole  login      mt-gnu      rmdir       true        zless
dash     fgrep      ls         mv           run-parts  umount     zmore
date     fuser     lspci      nano        sed         uname       znew
dd       grep       mbchk      netstat     setpci     uncompress
df       gunzip     mkbimage   pidof       sh         vdir
debian:/bin# _
```

perkakas dasar utk super user

```
# cd /sbin/
```

```
# ls
```

# /sbin

meliputi:

utility disk (format, resize, partisi, dll),  
power on/off, insert/remove modul-  
driver kernel, set IP, boot loader,  
firewall, tuning kernel parameter, dll

# RTFM

Read The Fine Manual

cth:

arsip & kompresi berkas dengan tar

(1) google "tar how to" "tar example"

(2) man tar (expert parameters)

# kapapan butuh

## “man” ?

- (1) tdk ada di contoh google
- (2) kebutuhan administrasi spesifik
- (3) memprogram script
- (4) agar lulus ujian :)



# kapapan butuh

## “man” ?

- (1) tdk ada di contoh google
- (2) kebutuhan administrasi spesifik
- (3) memprogram script
- (4) agar lulus ujian :)

apa itu  
shell ?

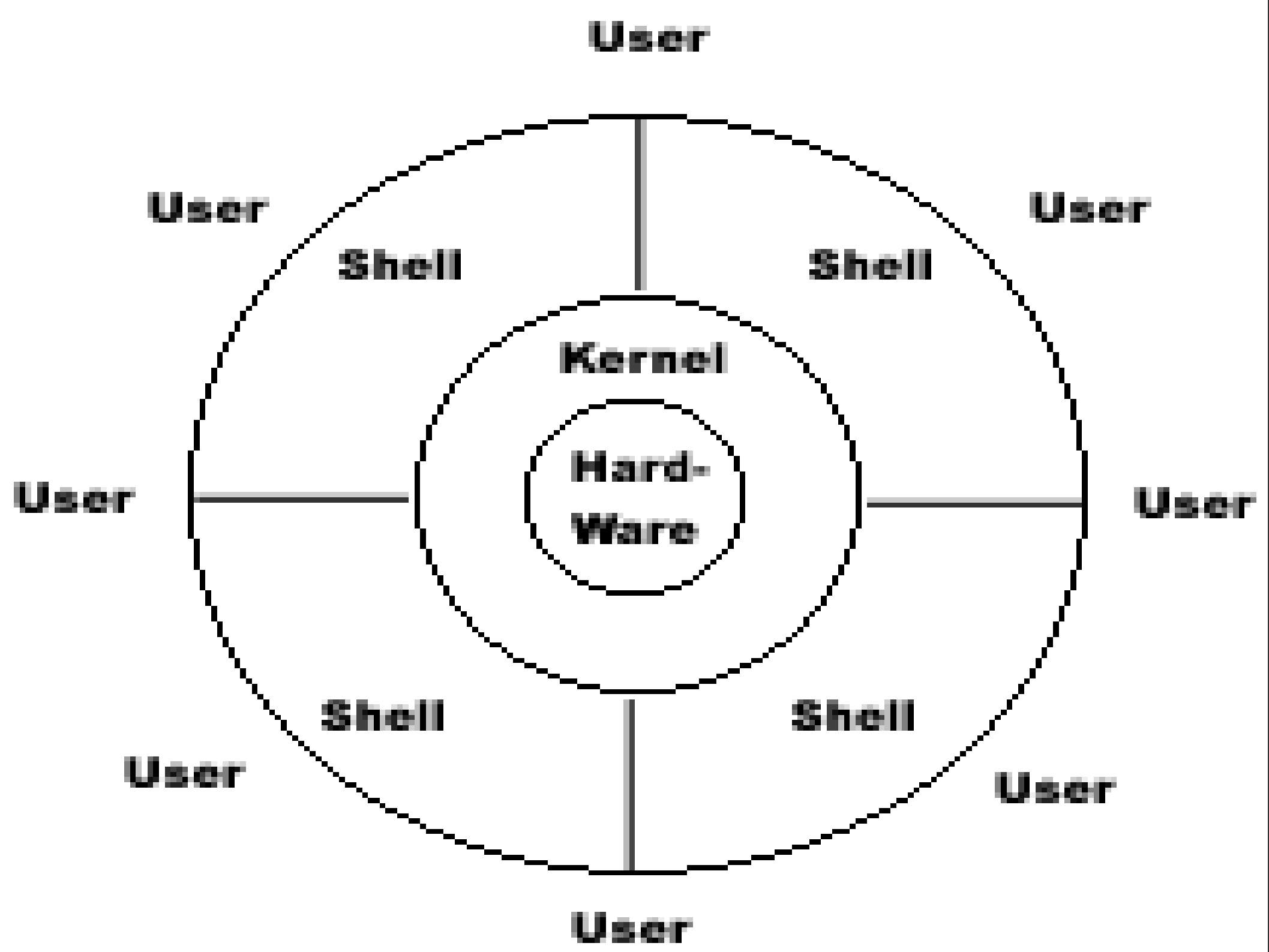
# shell

A shell is a piece of **software** that provides an **interface for users** of an operating system which **provides access to the services** of a kernel

00000000

Kernel





# shell

cth: (1) ash  
(2) dash  
(3) bash  
(4) tsh  
(5) rsh

dll sesuai agama  
dan kepercayaan  
masing-masing

# shell melakukan apa ?

- (1) read in from the terminal
- (2) run the commands
  - (a) internal commands
  - (b) external commands
- (3) show the commands' output

# shell internal commands

# man bash

> lihat bagian

SHELL BUILTIN COMMANDS

alias cd bg echo exit fg history

kill logout printf pwd set unset

dll sesuai SHELL ybs



# shell external commands

gunakan executables pada  
/bin, /sbin/, /usr/bin,  
/usr/sbin, dll

# shell programming

<http://www.freeos.com/guides/lsst/>  
Chapter 2

*A quick & dirty method of prototyping a complex apps*

Memecah proyek kompleks mjd bbrp  
*simple subtasks*

Lebih sederhana & mudah jika dilihat dari sudut pandang *problem solving*, dibandingkan harus “terpaksa” menyesuaikan diri dgn bahasa pemrograman high end (cth: Java, PHP, Perl, VB, dll)

# variabel

## User Defined Variables

\$ABC, \$TEST1, \$COBA, \$A, dll

## System Variables

\$HOME, \$SHELL, \$PS1, \$PWD, dll

# sintaks variabel

- (1) dimulai dgn huruf atau “\_”
- (2) tidak ada spasi
  - (a) penamaan variabel
  - (b) antara variabel dgn value
- (3) case-sensitive
- (4) jgn gunakan “?”, “\*” sbg nama
- (5) assignment dgn “=”
- (6) gunakan single/dbl quote utk value yg ada spasi-nya

# akses variabel

menampilkan dgn internal command

echo

cth:

```
# echo $HOME
```

```
# echo $PWD
```

```
# echo $PS1
```

# akses variabel

mengganti dgn assignment

"="

cth:

```
# PS1="\w> "
```

```
# A=10
```

```
# tes="INI Ibu Budi"
```

```
# slash=`ls -al /`
```

# cth akses variabel

```
# tes="INI Ibu Budi"
```

```
# echo $tes
```

```
# slash=`ls -al /`
```

```
# echo $slash
```

```
# coba=`cat /etc/hostname`
```

```
# coba2="saya coba"
```

```
# echo $coba $coba2
```



tanya jawab