

# Solaris Administrator's Quick Reference

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## User Initialization

**/etc/profile (\$HOME/.profile)**  
sh, bash, ksh system wide (per user) init  
(system wide init has no effect in CDE environment).

**/etc/login (\$HOME/.login)**  
csh, tsh system wide (per user) init  
(system wide init has no effect in CDE environment).

**\$HOME/.cshrc**  
per user csh, tcsh init (order: /etc/.login → \$HOME/.cshrc → \$HOME/.login).

**/usr/dt/config/Xsession.d/2000.login**  
system wide init for CDE environment (a script in Xsession.d).

**\$HOME/.dtprofile**  
per user init for CDE environment.

**/etc/skel/\***  
Template files (local.cshrc, local.login, local.profile) copied to new user's home directory.

## Network Configuration

**/etc/defaultdomain**  
NIS/NIS+ domain name.

**/etc/defaultrouter**  
IP address of the default router.

**/etc/resolv.conf**  
Internet domain name, name server and search order.  
[An example of resolv.conf](#)  
domain mydomain.com  
nameserver 192.168.0.1  
search mydomain.com

**/etc/nsswitch.conf**  
specifying information source from files, NIS, NIS+, or DNS.

**/etc/hostname.{hme0|le0}**  
Ipv4 hostname.

**/etc/nodename**  
IPv6 hostname.

**/etc/inet/hosts**  
Host name file (/etc/hosts is a link to this file).

**/etc/inet/netmasks**  
TCP/IP subnet masks.

**/etc/inet/protocols**  
Network protocols.

**/etc/inet/services**  
Network service name and port number.

**/etc/notrouter**  
create this file prevent in.routed or in.rdiscd from starting at boot time.

**/etc/inet/inetd.conf**  
Internet super daemon configuration file.

**Change hostname/IP address**      /etc/inet/hosts;  
   /etc/net/\*/hosts;  
   /etc/hostname.{hme0|le0}      /etc/defaultrouter;  
   /etc/nodename;                    /etc/resolv.conf

## Setup Printer

**Local printer**  
lpadmin -p prt\_name -v /dev/ecpp0 -D "description" -T PS  
-I postscript

parallel port: {/dev/ecpp0 | /dev/bpp0}  
serial port: {/dev/term/a | /dev/term/b}

**Printer connected to a computer**  
lpadmin -p prt\_name -s host\_name -T unknow -I any

**Network capable printer**  
lpadmin -p prt\_name -m netstandard -v /dev/null  
-D "description" -o protocol={bsd | tcp}  
-o dest=prtIP:9100 ←port needed for tcp protocol  
-o banner={never | optional | always}  
-o timeout=300

## Misc printing commands

**lpadmin -d prt\_name**  
set prt\_name as the default printer.

**lpstat -d**  
show current default printer.

**lpstat -p prt\_name -l**  
show prt\_name configuration.

**lpstat -t**  
show all printer status.

## Environment variables

**LPDEST or PRINTER**  
User default printer.  
**\_default** in /etc/printers.conf  
system default printer.

## Disable banner

edit file /etc/lp/interfaces/prt\_name  
nobanner=yes

## Common setting stored in file

/etc/lp/printers/prt\_name/configuration  
/usr/lib/lp/model

## File Sharing

**/etc/vfstab**  
File mount table (local or NFS).

**/etc/dfs/dfstab**  
File sharing table (NFS server).

**/etc/auto\_master**  
Automounter master map, sample as follow  
#### Master map for automounter ####  
/home auto\_home -nobrowse  
/- auto\_direct -ro

**/etc/auto\_home**  
Automount home (indirect) map, sample as follow  
#### mount home directory #####  
jialong bluebear:export/home/jialong

**/etc/auto\_direct**  
Automount direct map, sample as follow  
#### mount /usr/local from a server #####  
/usr/local bluebear:/usr/local

**/etc/vold.conf**  
Volume manager configuration.

**share [options] pathname**  
export NFS file systems to other computers.

**mount [options] filesrv:pathname /mnt**  
Mount remote file system. For security, when possible, mount system as readonly and nosuid.

**/etc/rmmount.conf**  
Removable disk configuration.

## Sendmail Configuration

**/etc/mail/sendmail.cf**  
sendmail configuration file.

**/etc/mail/aliases**  
aliases file. Must run newaliases after modifying aliases file.

**Configure a mail server**  
[Generate new configuration file](#)  
cd /usr/lib/mail/cf  
cp main-v7sun.mc foo.mc  
/usr/ccs/bin/make foo.cf

[Test new mail configuration file](#)  
/usr/lib/sendmail -C foo.cf -v email\_address </dev/null

[Install configuration file](#)  
cd /etc/mail  
cp sendmail.cf sendmail.sav  
cp /usr/lib/foo.cf sendmail.cf

pskill -HUP sendmail

**Anti-spam**  
[make sure FEATURE\(access\\_db\) is in sendmail.mc](#)  
[create /etc/mail/access with something like](#)

cyberpromo.com	REJECT
sendmail.org	RELAY
spam@buyme.com	550 Spammers shan't see sunlight here

[makemap hash /etc/mail/access </etc/mail/access](#)

## CDE configuration

**\$HOME/.dtprofile**  
per user CDE init file, generated from  
/{usr/etc}/dt/config/sys.dtpprofile.

**\$HOME/.dt/dtwmrc**  
desktop manager configuration file (pop-up menu when right click mouse). From /{usr/etc}/dt/config/C/sys.dtwmrc

**/usr/dt/appconfig/types/C/dtwm.fp**  
copy to \$HOME/.dt/types/myname.fp and modify it.

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**\$HOME/.dt/sessionetc**  
per user CDE session start file (script with execute perm).

**\$HOME/.dt/sessionexit**  
per user CDE exit file (script with execute permission).

**/{usr | etc}/dt/config/C/Xresources**  
control attribute of login screen, for example, to disable session menu, uncomment following line  
Dtlogin\*session\_menus\*sensitive: False

**/{usr | etc}/dt/config/C/sys.resources**  
session resource, for example, to disable automatic screen lock, set timeout to 0  
dtsession\*lockTimeout: 0

**\$HOME/.dt/sessions/{current | home}**  
current (home) session files.

**/{usr | etc}/dt/config/Xconfig**  
configuration file for login screen (dtconfig), after change use dtconfig -reset

**/usr/dt/config/Xstartup**  
this script run after user login but before user session.

**/usr/dt/config/Xaccess**  
Control access to Xserver.

**/usr/dt/bin/Xsession**  
start CDE session

**/usr/dt/config/Xsession.d/\***  
Scripts auto executed by Xsession.

**usr/dt/config/Xsession.ow**  
start OpenWindow session.

**/usr/dt/config/Xreset**  
Command executed after the session end.

**/usr/dt/bin/dtconfig -e|-d|-kill**  
-e|-d: enable (disable) autostart login server.  
-kill: kill dtlogin and all its child process.

**\$HOME/.dt/icons**  
**#{usr|etc}/dt/appconfig/icons/C**  
default icons search path.

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## System Configuration

**/etc/passwd, /etc/shadow, /etc/group**  
user account information.

**/etc/ftpusers**  
users NOT allowed to use FTP.

**/etc/system**  
Kernel parameters  
Example: disable execution in stack  
set noexec\_user\_stack=1  
set noexec\_user\_stack\_log=1  
set maxuprc = 128 # maximum no. of user process  
set sys:coredumpsize = 0 # prevent core dump

**/etc/hosts.equiv, (\$HOME/.rhosts)**  
system wide (per user) trust hosts.

**/etc/motd, (/etc/issue)**  
message after (before) login.

**/etc/shells**  
allowed shell program.

**/etc/initab**  
run level configuration.

**/etc/rc{S, | 1 | 2 | 3 | 5 | 6}.d**  
scripts for different run levels.

**/etc/bootparams**  
rpc.bootparamd configuration file.

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**/etc/pam.conf**  
pluggable authentication configuration file.

**/etc/power.conf**  
power configuration.

**/etc/printers.conf**  
BSD printer configuration.

**/etc/magic**  
used by "file" command to determine file type.

**/etc/security/\***  
security audit related files.

**/etc/syslog.conf**  
system log daemon configuration file.

**/etc/notrouter**  
specify this host is not a router.

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## Default info for various programs

**/etc/default/power**  
power management parameters.

**/etc/default/Solregis**  
put DISABLE=1 to disable solaris registration screen.

**/etc/default/su**  
settings for "su" command.

**/etc/default/sys-suspend**  
users permitted to put system in suspend mode.

**/etc/default/passwd**  
minimum password length.

**/etc/default/login**  
login related settings, put CONSOLE=/dev/console  
disable root login by telnet (rlogin).

**/etc/default/init**  
time zone, CMASK (default 022)

**/etc/default/kbd**  
KEYBOARD\_ABORT=disable

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## Application Configuration

**/etc/ssh2/ssh2\_configure (\$HOME/.ssh2/ssh2\_config)**  
SSH client system wide (per user) configuration file.

**/etc/ssh2/sshd2\_config (\$HOME/.ssh2/sshd2\_config)**  
SSH server system wide (per user) configuration file.

**Setup SSH2 to accept hostbased authentication**

(1) Server side  
In sshd2\_config, includes hostbased, like this  
AllowedAuthentications hostbased, publickey, password  
In /etc/hosts, use client's full qualified domain name (FQDN).  
In .rhosts (.shosts), also use FQDN, make user these files are owned by that user and not writeable by other users.  
Copy client's hostkey.pub to server's /etc/ssh2/knownhosts and name it as FQDN.ssh-dss.pub (e.g., bluebear.la.asu.edu.ssh-dss.pub).

(2) Client side  
In ssh2\_config, includes hostbased authentication, like this  
AllowedAuthentications hostbased, publickey, password  
Also need to set DefaultDomain keyword, like  
DefaultDomain la.asu.edu

**/usr/local/lib/pine.conf**  
system wide PINE configuration, overwrite by \$HOME/.pinerc

**/usr/local/lib/pine.conf.fixed**  
system wide PINE configuration, NOT overwrite by ~/.pinerc

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**httpd.conf (https.conf)**  
Apache web server configuration file. (www.apache.org)

**smb.conf**  
Samba (window server) configuration file. (www.samba.org)

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## Miscellaneous Commands

**SUN patch files and freeware**  
<http://sunsolve.sun.com>  
<http://sunfreeware.com>

**Forget root password**  
boot -s cdrom  
find out root partition with "format" command  
mount /dev/dsk/c0t0d0s0 /mnt (suppose c0t0d0s0 is root part.)  
edit /mnt/etc/shadow

**Disable auto-logout feature for tcsh**  
Put following line in .cshrc or .tcshrc  
unset autologout

**edit /etc/initab**  
remove sc:234:respawn:/usr/lib/saf/sac -t 300  
disable serial device (modem) login.

**showmount -e host\_name**  
show export file systems on host\_name.

**rpcinfo -p host\_name**  
check RPC services on host\_name.

**ldd program**  
show what dynamic libraries needed by program.  
LD\_LIBRARY\_PATH is the search path for dynamic libraries.

**useradd -d homedir -u UID -g GID -c "comment" -s shell**  
add new user account.

**man foo | col -b > foo.txt**  
save manual page for command "foo" in pure text.

**pkgadd -d pkgfile**  
add solaris package file.

**boot -r**  
Reconfiguration system after adding new hardware.

**who -r**  
show current run level.

**volcheck -v**  
check if new floppy/cdrom is inserted.

**fuser -u [-k] /cdrom**  
Show which program is using the cdrom (or floppy).

**/usr/sbin/eeprom**  
show settings in eeprom.

**/usr/sbin/prtconf -vb**  
show system information.

**find / -type f -perm -4000 -user root -print**  
find set UID to root program.

**m64config -res 1024x768x75 -depth 24**  
set screen resolution, color depth for M64 frame buffer.  
(ffbconfig on Ultra -60)

**fsck -F ufs -y /dev/rdisk/c0t0d0s0**  
file system check, answer "y" to all questions.

**xv -root -quit foo.gif**  
set CDE screen background.

**/etc/init.d/script {start | stop}**  
run a script in /etc/init.d directory.

**newfs -v /dev/rdisk/c0t0d0s6**  
construct new file system after format.

**/usr/sbin/sys-unconfig**  
reconfiguring the system.

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**patchadd** [*options*] *patch*

apply patch to system.

**ufsdump** **0uf** /*dev/rmt/0* /

backup of all files.

**ufsrestore** *xf* /*dev/rmt/0* *etc/inetd.conf*

restore inetd.conf file from backup

**install\_cluster** **-q -nosave**

install recommended patch cluster.

**ndd**

set TCP/IP parameters

**eeeprom**

change settings in eeprom, like

eeprom security-mode=full

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## Shell Programming

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**if-then-else**

sh, bash, ksh

if *condition*; then

*action\_1*; else

*action\_2*; fi

csh, tcsh

if (*condition*) then

*action\_1*;

else

*action\_2*;

endif

**foreach**

sh, bash, ksh

for *key* in *list...* ; do

*actions*; done

csh, tcsh

foreach *key* (*list*)

*actions*

end

Rename files

foreach *i* (\*)

mv *\$i* *\$i.old*

end

**do-while**

sh, bash, ksh

while *condition*; do

*actions*; done

csh, tcsh

while (condition)

*actions*

end