Lecture overview

- Users and accounts
- User groups
- Getting information about users
- Changing groups

Real and efective user ID

real user ID – ID of the user responsible for creation of the process

efective user ID – User ID determining proces rights. Initially equal to real user ID. Can be changed if program is marked as SUID.

File – /etc/passwd

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username:password:uid:gid:gcos:home:shell
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username – user's login name

password – user's crypted password (or "x")

uid – user's numerical ID

gid – numerical ID of the group

gcos – user's real name

home – user's home directory

shell – user's initial shell

Getting information about users

w – who is logged on, what does he do

who – who is logged on, where is logged from

rup – which machines are available, how they are loaded

rusers – who is working on which macine

finger – who is logged on the machine or detailed informatioon about particular user

whois – iformation about user based on his full name

File – /etc/group

`groupname:password:gid:list`

groupname – the name of the group
password – group's crypted password
gid – numerical ID of the group
list – list of users belonging to the group

Command – su

`su [-] [`*user*`[-c`*command*`] ]`

- change real and effective user id
- reset all not exported variables
- ask for password if required
- execute command with user's rights

Command – newgrp

`newgrp [-] [`*group*`]`

- change real and effective group id
- reset all not exported variables
- ask for password if required (and if user is not listed as a member)

System calls

`setuid(uid)` – set real user ID

`seteuid(uid)` – set efective user ID

`setgid(gid)` – set real group ID

`setegid(gid)` – set efective group ID

`uid=getuid()` – get real user ID

`uid=geteuid()` – get efective user ID

`uid=getgid()` – get real group ID

`uid=getegid()` – get efective group ID