

Linux, day 11



Objectives covered

Objective	Summary	Boek
1.1	Device types and hardware	23
1.2	File compression and backups	12
1.4	Process management	21
1.4	Scheduling	26

LAB: Job control

Assignment 1

- Create a small shell script "*~/at-test.sh*".
 - This should append "Hello!" to */tmp/at-test.txt*.
 - It should also include the output of "*date*".
- Use "*at*" to run it in 1 minute.
- Use "*crontab*" to schedule it for every hour, always.

Assignment 2

- Create a small shell script */opt/mysvc.sh*
 - This should write into */var/log/mysvc.log*
 - First test it manually.
- Use this: [Create a simple systemd service unit.](#)
 - Make *mysvc.sh* a systemd service that runs at reboot.
 - Prove that it works.

LAB: Archives, backups, etc.



Assignment 1

- Make a *zipped tar*-archive of your home directory.
- SCP archive to the other VM and unpack in */tmp*.
- Careful, these three have different results!

```
$ tar zcf /tmp/home1.tgz /home/tess/  
$ cd /home; tar zcf /tmp/home2.tgz tess/  
$ cd ~; tar zcf /tmp/home3.tgz ./*.*
```

Assignment 2

- Can you make a *zip* or *gzip* with:
 - All the .txt files in the */usr/share/* tree?
- Hint: combine the *find* command,
 - With an option of "*zip*" to read files from *stdin*.

Assignment 3

- Use rsync to synchronize */var/www/*,
 - From one VM to */tmp/www* on the other.
 - Or to *localhost:/tmp/www* if you have one VM.
- Be careful how you specify source and destination!

Practicing your Linux



"The end is nigh!"

- We are almost done covering the objectives.
- Five more classes and we will have...
 - Gone over the theory.
 - Done exercises in the labs.
 - Tackled practice questions.

Your time to shine!

- To really understand Linux, you need more.
 - What we have done scratches the surface.
 - Now you need practice!
- Two-pronged attack:
 - Theory and practical exercises.

Practicing theory

- The Sybex book offers flashcards and trial exams.
 - Use them to test your current score,
 - Or use them to "*level up*"! Research each question!
- PluralSight has video courses on most topics.

Practicing scripting

- PluralSight's has a great scripting class.
 - ["Creating shell scripts in Enterprise Linux"](#)
- U of Cambridge has a [set of short scripting exercises](#).
- TLDP also has [short scripting exercises](#).

Practicing for real

- [CertDepot.net has daily Linux tasks.](#)
 - Targeted at the RHCSA exam, so above Linux+.
 - That's okay! Instead of 10-20 minutes,
 - Take a whole day for each task!
 - Research! Test! Build! And take notes!
- Also: [Red Hat has online labs!](#)

Want something tougher?

- CertDepot.net also has full practice exams!
 - A list of tasks to perform within a time frame.
 - They're a great source of exercises!
- There's also a [great Github project with more tests.](#)
- Sander van Vugt [also has RHCSA prep-exams.](#)
- Linux Foundation has [LFCS practice questions.](#)

More practice!

- [KodeKloud Engineer](#) is a gamified learning platform.
 - You're a Linux admin who needs to do tasks.
- [Exercism.org](#), with Bash exercises
- [Linux Upskill Challenge](#) is a free, 30-day course.
 - It has a lot of cool exercises and labs.

Weekly updates

- Please, do yourself a favor:
 - Do at least one CertDepot task each week.
 - Compile notes for yourself.
 - Send me a little report on what you did and how.

Closing

Homework

- Reading:
 - Chapter 9
 - Chapter 13
 - Chapter 17

Homework

- Go do:
 - Set up a nightly cron job.
 - This job should run rsync,
 - FROM your home directory on Fedora,
 - TO */data/homedir/* on the second VM.

Reference materials

Resources

- [Sending signal to processes](#)
- [How to use tmux \(and why it's better than screen\)](#)
- [Create a simple systemd service unit.](#)
- [crontab.guru](#)
- [How to write basic udev rules](#)
- [An introduction to udev](#)
- [Why use cpio for initramfs](#)

Resources

- [Why switch to XZ from gzip/bzip2](#)
- [How to use rsync](#)
- [PluralSight learning path for XK0-005](#)
- [Creating shell scripts in Enterprise Linux](#)
- [Small set of scripting exercises](#) (U of C)
- [More scripting exercises](#) (TLDP)
- [CertDepot.net daily Linux tasks.](#)

Resources

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- [Linux Foundation's LFCS practice questions](#)
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