STARTUP
SYSTEMS ENGINEER's

effie mouzeli □ manji @freenode □ Logicea, LLC

LOGICEA ®

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Instruction **Manual**

SREcon17 EMEA

1 The Normality
of being a member

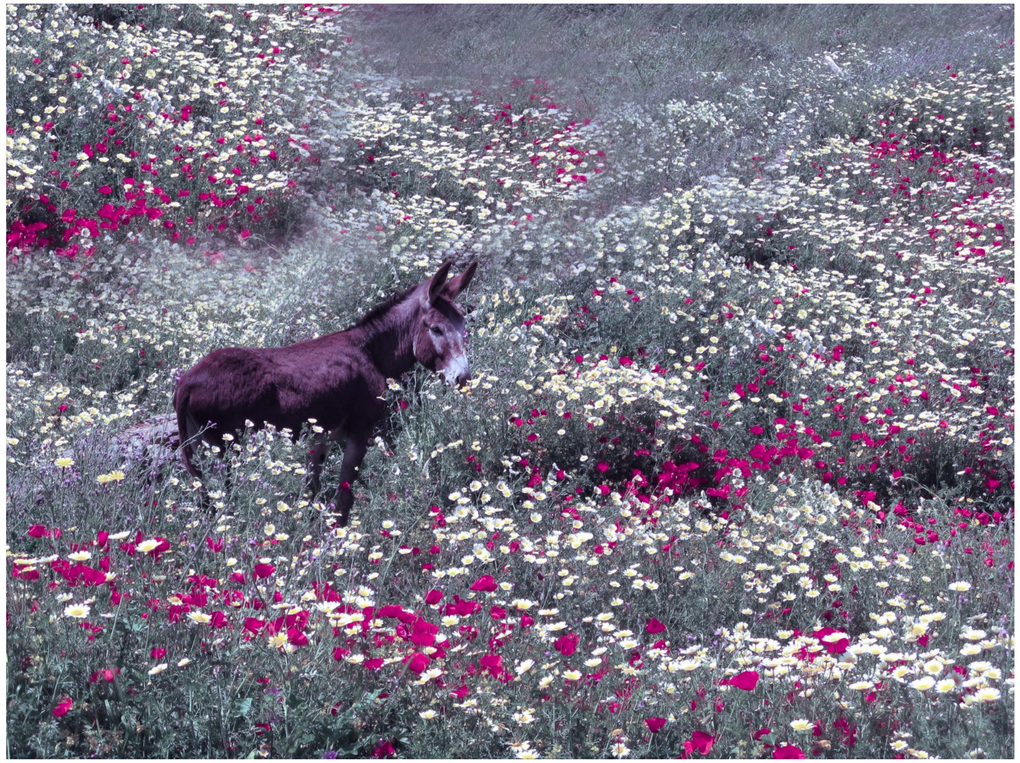
You are not alone

- [ ] Share the workload
- [ ] Share ideas
- [ ] Share the responsibility
- [ ] Guidance and mentoring
- [ ] Specialisation
- [ ] Polyphony
- [ ] Bus Factor > 1

2 Joining a startup
as a sole system engineer

2.1 You are alone

- [ ] You will do most of the work
- [ ] You will talk to yourself
- [ ] You are responsible
- [ ] You are both a generalist and a specialist
- [ ] Bus Factor ≃ 1



2 Joining a startup
as a sole system engineer

2.2 The bright side

- [ ] Time to grow up
- [ ] Take decisions and responsibility
- [ ] Resourcefulness and creativity
- [ ] Fewer blind spots

2 Joining a startup
as a sole system engineer

2.3 Significance of your role

- [ ] Know why you are here
- [ ] Set the standards
- [ ] Bring your experience
- [ ] Stand between devs and infrastructure
- [ ] Find answers and solutions
- [ ] Design and advise for the future

3 Planning and building
your infrastructure

3.1 Observe and listen

- [ ] Learn about the product and its future
- [ ] Understand components dependencies
- [ ] Learn the current deployment process
- [ ] Gather information
- [ ] Document the current state
- [ ] Document manual steps
- [ ] Detect bad habits

3 Planning and Building
your infrastructure

3.2 The big picture

- [ ] Configuration Management*/Orchestration
- [ ] Provisioning environments
- [ ] Monitoring & Alerting
- [ ] Logging & Metrics
- [ ] Update Management
- [ ] Viable backups
- [ ] Security

* where available

3 Planning and building
your infrastructure

3.3 Take small steps

- [ ] Prioritise
- [ ] Start with familiar and basic tools
- [ ] Avoid complex solutions (save it for later)
- [ ] Develop tools
- [ ] **Iterate**

3 Planning and building
your infrastructure

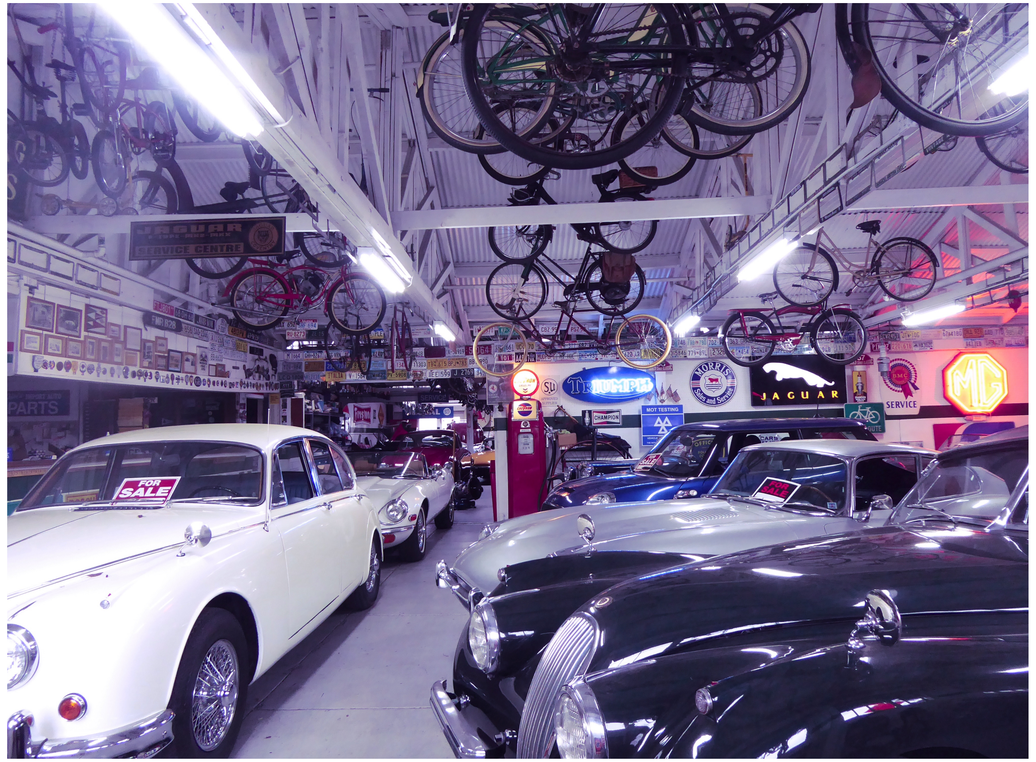
3.4 Creating processes and rules

- [ ] Decide how things should be done
- [ ] Automate as much as possible
- [ ] Find reusable and clear solutions
- [ ] **Be consistent** (e.g. in naming)
- [ ] **Be consistent** (i.e. be consistent)
- [ ] Hide complex procedures
- [ ] **Revise when you should**

3 Planning and building
your infrastructure

3.5 Research, deploy, break

- [ ] Choose wisely what to research, and when
- [ ] Understand the company’s size and needs
- [ ] Learn to let go
- [ ] Be patient
- [ ] Failures will happen, and you’ll fix them
- [ ] Think ahead and design for tomorrow



3 Planning and building
your infrastructure

3.6 Document

- [ ] Use a work tracking tool
- [ ] Try to plan your week
- [ ] Have a *shared* wiki (FAQs, Runbooks etc)
- [ ] Write readable code

4 Common pitfalls

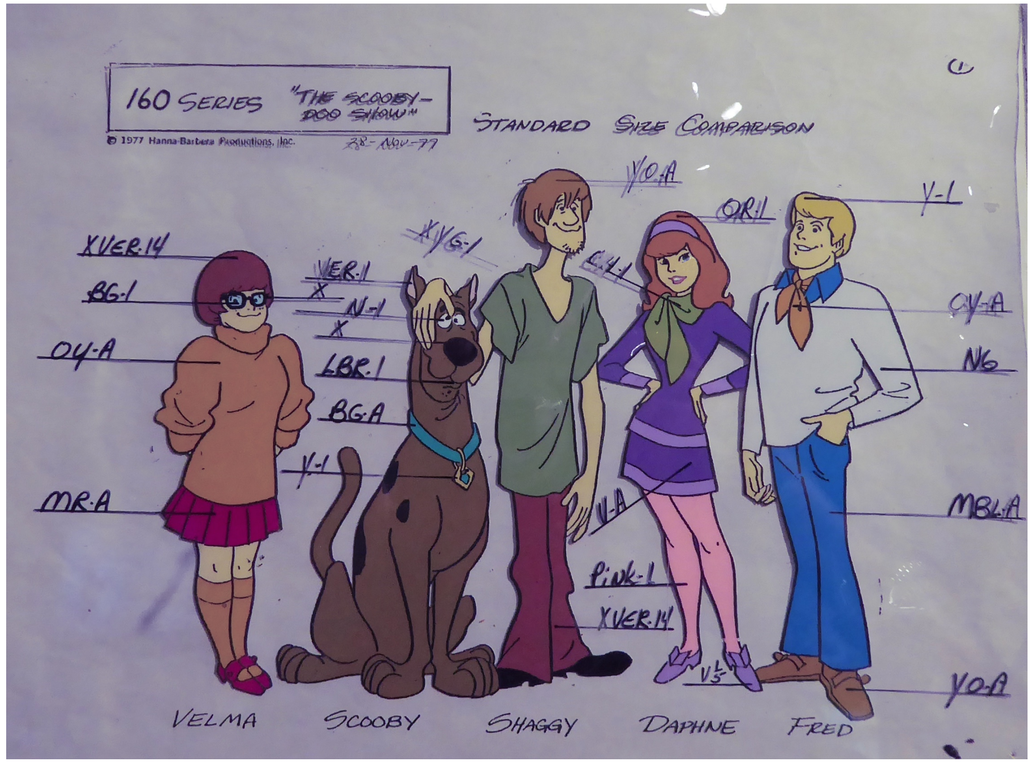
Mind the gap

- [ ] Always saying yes
- [ ] Always saying no
- [ ] Over-engineering
- [ ] Failure to decode information
- [ ] Underestimation
- [ ] Assumptions

5 Working
in a development team

You are in the same team

- [ ] Manage interruptions
- [ ] Be approachable and compromise
- [ ] Share your knowledge and train
- [ ] Communicate processes and rules
- [ ] **Don’t be arrogant**



6 Becoming a team

Share your Legos

- [ ] Recount your experiences
- [ ] Delegate
- [ ] Train
- [ ] Let the team evolve
- [ ] Don’t micromanage

7 Summing up

You can do it!

- [ ] Make short iterations
- [ ] Let your solutions mature
- [ ] Revise
- [ ] Your role is to *save time*
- [ ] Always say “we”
- [ ] Embrace failures and mistakes
- [ ] Don’t be arrogant

THANK YOU

Links

Tools

- [ ] Ansible: https://scotch.io/tutorials/getting-started-with-ansible
- [ ] Jenkins: https://www.sumologic.com/blog/devops/jenkins-developing-ci-pipeline/
- [ ] Jenkins: https://www.novoda.com/blog/new-jenkins-pipelines/
- [ ] Fabric: https://tinyurl.com/q86mer3
- [ ] Munin: http://blog.bbv.ch/2013/02/16/linux-server-monitoring-with-munin/
- [ ] Monit: https://www.linode.com/docs/uptime/monitoring/monitoring-servers-with-monit

Links

Images

- [ ] https://en.wikipedia.org/wiki/Commodore_64#/media/File:Commodore-64-Computer-FL.jpg
- [ ] http://www.atarimania.com/2600/boxes/hi_res/pitfall_cart_2.jpg