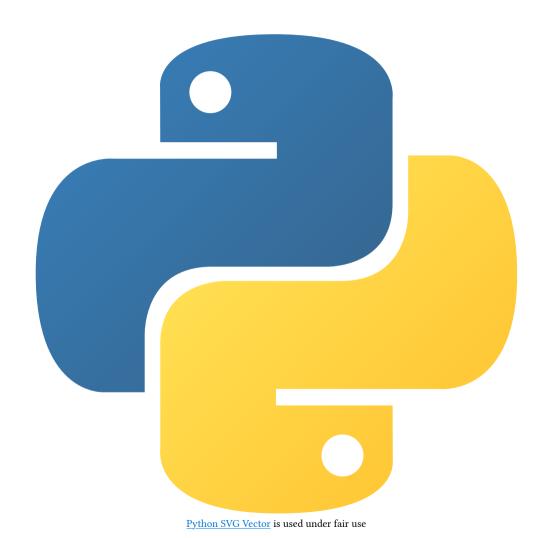


Automate the Boring Stuff

Ryan Tolboom

New Jersey Institute of Technology

Python



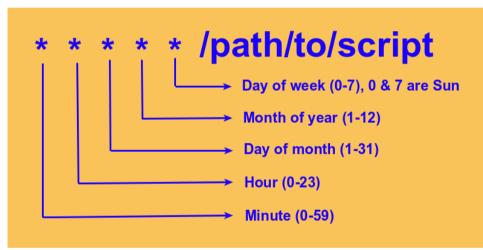
- Huge library base
- Easy to get started
- Binaries for everything
- Easy(ish) to maintain
- These slides are automated with Python
- "I'm not really a coder"

BASH Scripts

- They get the job done
- If you can type on the command line, you can understand it
- Consider migrating if they get huge
- Any Linux system has a BASH interpreter
- Syntax can be pretty wonky



Cron / At



"Cron Job" by xmodulo is licensed under CC BY 2.0

- at run once *at* a later time
- cron run repeatedly according to a schedule
- Every user (even root) can have a crontab that runs with their permissions
- man cron, crontab -e
- You better hope the cron daemon keeps running
- If your container has a cronjob, you're doing it wrong

Push vs. Pull

- Hybrid solutions are probably best (pull, but push when needed)
- Some automation systems periodically check in (Puppet, Chef)
- <u>High availability software</u> can be used to check system status



"Push and Pull Humour" by mikecogh is licensed under CC BY 2.0

What should I automate?

| Provisioning | Deployment (git) | Backups (rsync) |
|-------------------|------------------|-----------------|
| Configuration | Security | Orchestration |
| User notification | Testing | Coffee? |

Ansible



- Python-based, uses SSH
- Push (can also do pull)
- YAML (watch your spaces)
- Playbooks
- Roles
- Lots of Modules
- Descriptive: Define what you want to end up with
- Cloud-ready
- "I don't need Ansible, I'll just put all that in the Dockerfile"

Automation Mindset

- Change the way you think, tools will always change
- What do I spend my time doing?
- What provides the best experience for your users?
- Can I automate and monetize something that others are doing by hand?
- Windows Options



"Mindset" by davis.steve32 is licensed under CC BY 2.0