



# Automate the Boring Stuff

Ryan Tolboom

New Jersey Institute of Technology

# Python



[Python SVG Vector](#) is used under fair use

- 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”

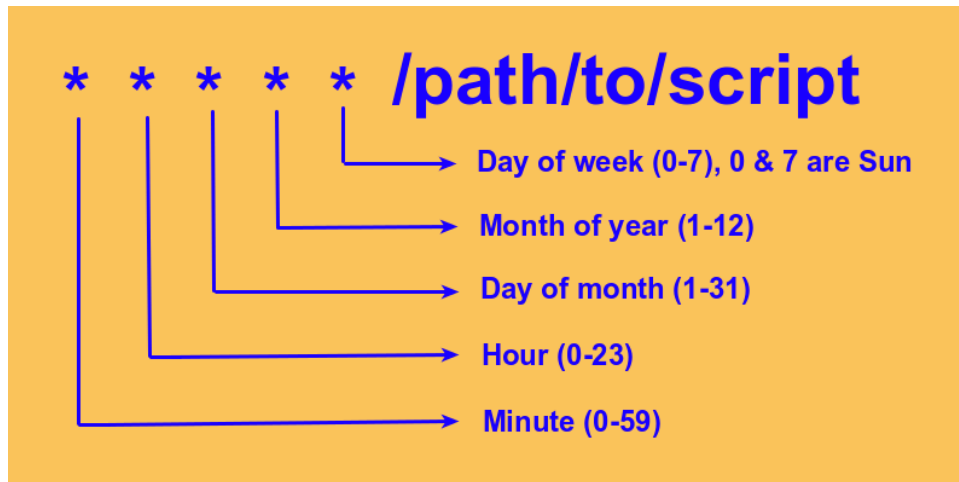
# BASH Scripts

- 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](#)



[full\\_color\\_dark.svg](#) is used under fair use

# 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)
- [High availability software](#) 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



ANSIBLE

[Ansible logo.svg](#) is used under fair use

- 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](#).