# Best Practices in Systems Administration

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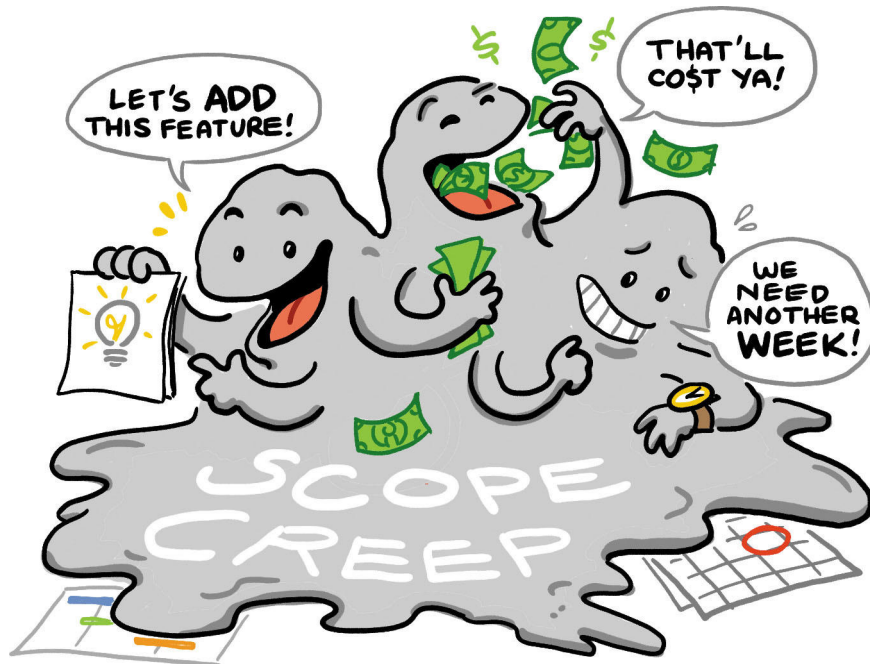
BEING A
SYSADMIN
IS EASY
IT'S LIKE RIDING A BIKE
EXCEPT THE BIKE IS ON FIRE
YOU ARE ON FIRE
🔥 EVERYTHING IS ON FIRE 🔥

# Scope



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- Define your role and the problem you are addressing
- **Scope creep** - continuous or uncontrolled growth in a project's scope
- Even (especially) internally, an SLA can help
- Who is going to maintain this?
- Who is going to admin this?
- Don't be in charge of the coffee maker!

# KISS

- Do you *really* need that feature? ( YAGNE )
- Are you using an open source solution?
- What happens if you get sick / leave?
- Does the work flow make sense?



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# Document, Document, Document



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- [Learn markdown, it'll only take a few minutes](#)
- Use [pandoc](#) for people who want HTML / PDFs / etc.
- Write things down like your pedantic sysadmin prof is looking over your shoulder... they might be.
- You will forget and others need to know
- Use code documentation tools (docstrings etc...)

| Google Docs | Wikis | OneNote |
| --- | --- | --- |
| [GitBook](#) | [Antora](#) | Knowledge Bases |
| A git repository and Markdown | [doxygen](#) | [Sphinx](#) |

# Don't Repeat Yourself (DRY)

- Does your script follow the previous KISS principal?
- Is there data being replicated (including account info)?
- Should this be using other services? SSO ? LDAP ?
- Start small, build up

HOW LONG CAN YOU WORK ON MAKING A ROUTINE TASK MORE EFFICIENT BEFORE YOU'RE SPENDING MORE TIME THAN YOU SAVE?
(ACROSS FIVE YEARS)

HOW OFTEN YOU DO THE TASK

| | 50/DAY | 5/DAY | DAILY | WEEKLY | MONTHLY | YEARLY |
|---|---|---|---|---|---|---|
| 1 SECOND | 1 DAY | 2 HOURS | 30 MINUTES | 4 MINUTES | 1 MINUTE | 5 SECONDS |
| 5 SECONDS | 5 DAYS | 12 HOURS | 2 HOURS | 21 MINUTES | 5 MINUTES | 25 SECONDS |
| 30 SECONDS | 4 WEEKS | 3 DAYS | 12 HOURS | 2 HOURS | 30 MINUTES | 2 MINUTES |
| 1 MINUTE | 8 WEEKS | 6 DAYS | 1 DAY | 4 HOURS | 1 HOUR | 5 MINUTES |
| 5 MINUTES | 9 MONTHS | 4 WEEKS | 6 DAYS | 21 HOURS | 5 HOURS | 25 MINUTES |
| 30 MINUTES | | 6 MONTHS | 5 WEEKS | 5 DAYS | 1 DAY | 2 HOURS |
| 1 HOUR | | 10 MONTHS | 2 MONTHS | 10 DAYS | 2 DAYS | 5 HOURS |
| 6 HOURS | | | | 2 MONTHS | 2 WEEKS | 1 DAY |
| 1 DAY | | | | | 8 WEEKS | 5 DAYS |

HOW MUCH TIME YOU SHAVE OFF

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| BASH | [Powershell](#) | Python |
|---|---|---|
| Ansible | Puppet | [Salt](#) |
| [Vagrant for VMs](#) | [Docker for containers](#) | Terraform |