



#ANSIBLEAUTOMATES

MADRID - 30 ENERO 2019

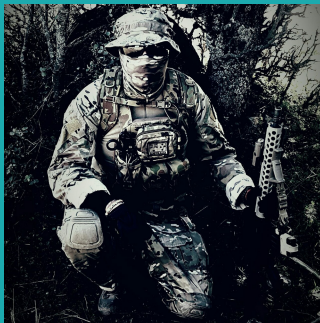


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ANSIBLE ESSENTIALS

Moy
Solutions Architect



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What is Ansible Automation?

How it works?



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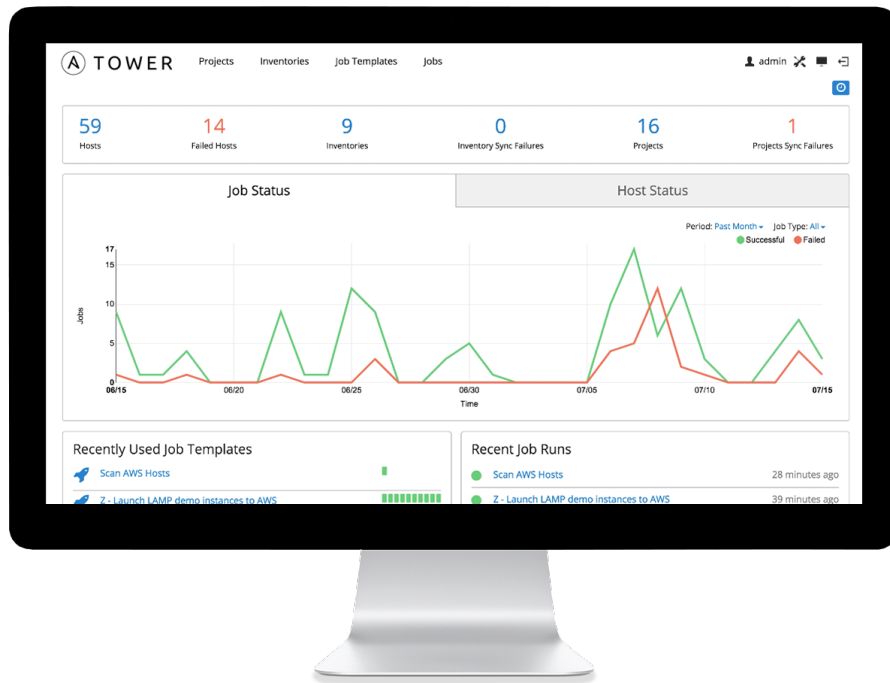




It's a **simple automation language** that can perfectly describe an IT application infrastructure in Ansible Playbooks.

It's an **automation engine** that runs Ansible Playbooks.

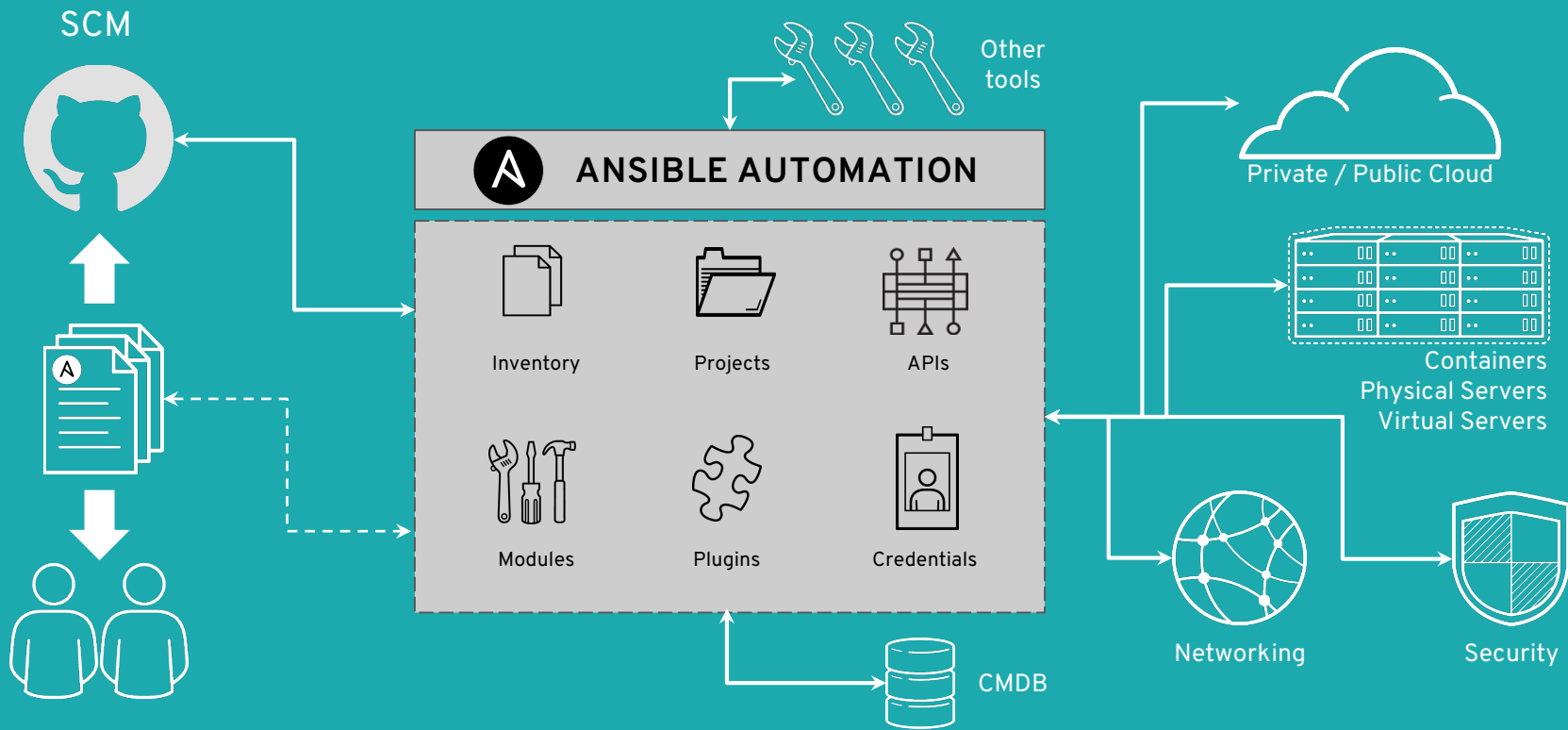
Ansible Tower is an **enterprise framework** for controlling, securing and managing your Ansible automation with a **UI and RESTful API**.



How it works?



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Essentials



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ROLES

ansible-lint

Variables

Optimize for readability



Molecule

Jinja2

```

- debug:
  msg: "This is always display"
- debug:
  msg: "Only with -vv+"
  verbosity: 2

```

Separate logic from variables

Inventories

USE NATIVE YAML SYNTAX

Playbooks

```

[db]
db[1:4]
db1
db2
[east]
[west]

```

Do it with **STYLE**



WORKFLOW

Avoid *shell & command*

```

web[1:4]
web3
web4

```



redhat.

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SUPPORTED BY

Best Practices

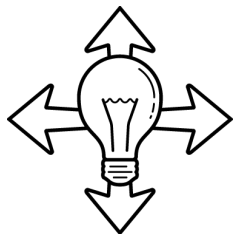
- Always name your tasks
- Generalize your playbooks
- Idempotency
- Use native YAML style
- Human readable variables names
- Small playbooks
- Don't manage variables in templates
- Every role needs to have one (and only one) purpose.
- Keep roles simple
- Use ansible-lint in the CI pipeline
- Modelize the services
- `module>>command>>shell>>script>>raw`
- Separate provisioning from deployment and configuration tasks
-



Before

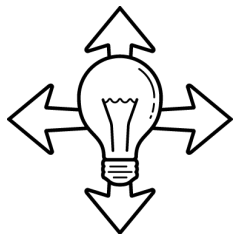


At the beginning....

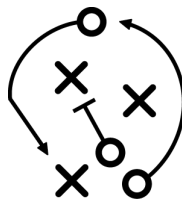


What is your approach
to automation?

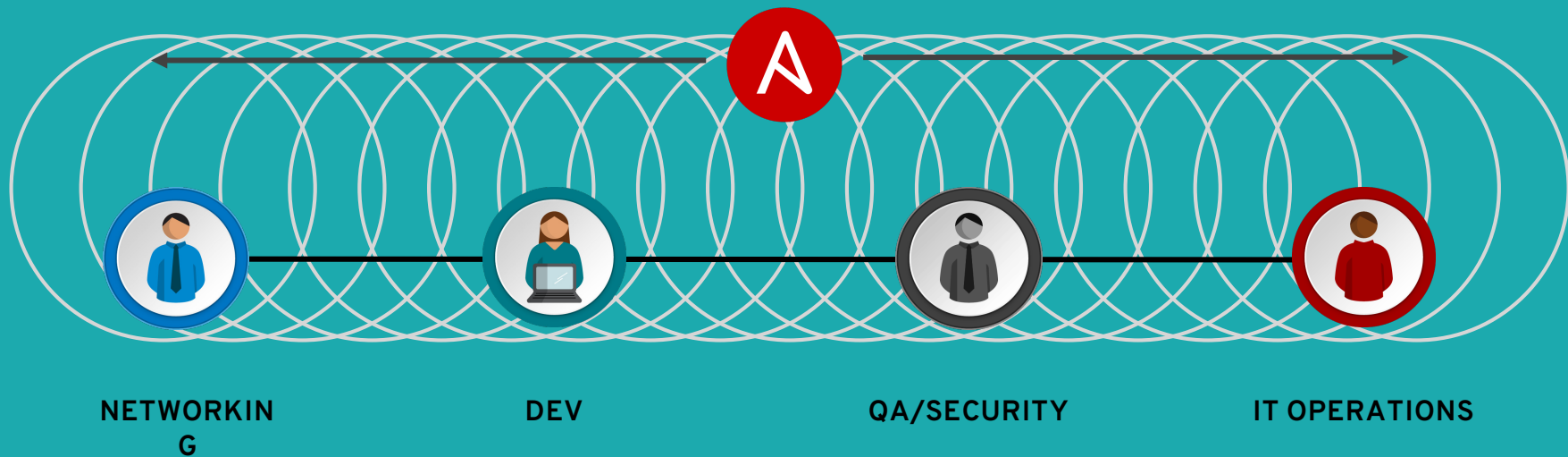
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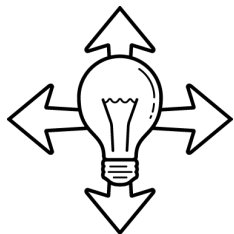
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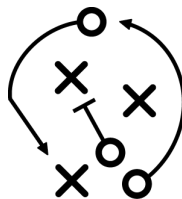
How many departments will be involved?



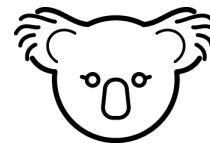
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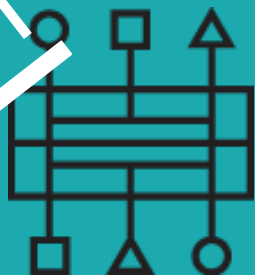
How many departments will be involved?



How will you integrate automation into your ecosystem?



Rest API

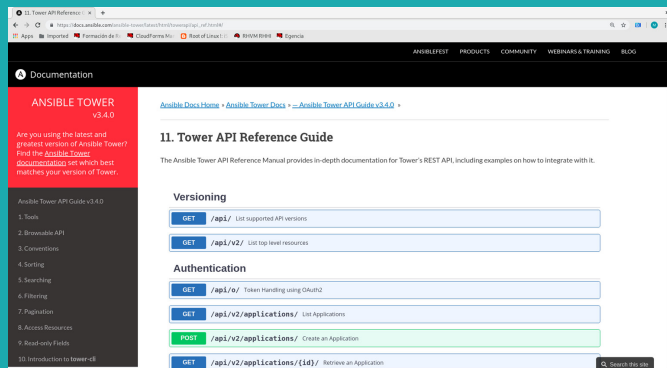


10 SERVERS



APP SERVERS

Orchestration

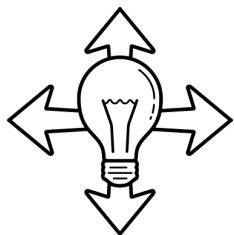


- 1 STOP MONITORING
- 2 REMOVE FROM LOAD BALANCING
- 3 STOP SERVICES
- 4 DEPLOY APPLICATION

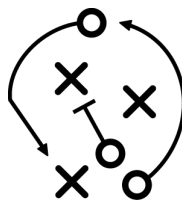
- 5 REVERSE STEPS 3, 2, 1
- 6 MOVE TO NEXT 10 SERVERS



At the beginning....



What is your approach to automation?



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How will you integrate automation into your ecosystem?



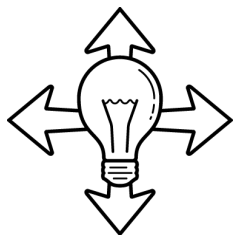
What will be your source of TRUTH?



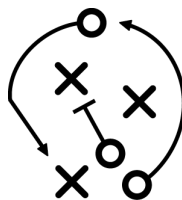
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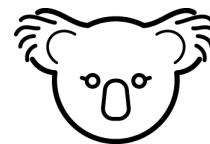
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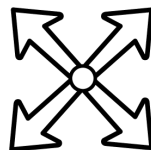
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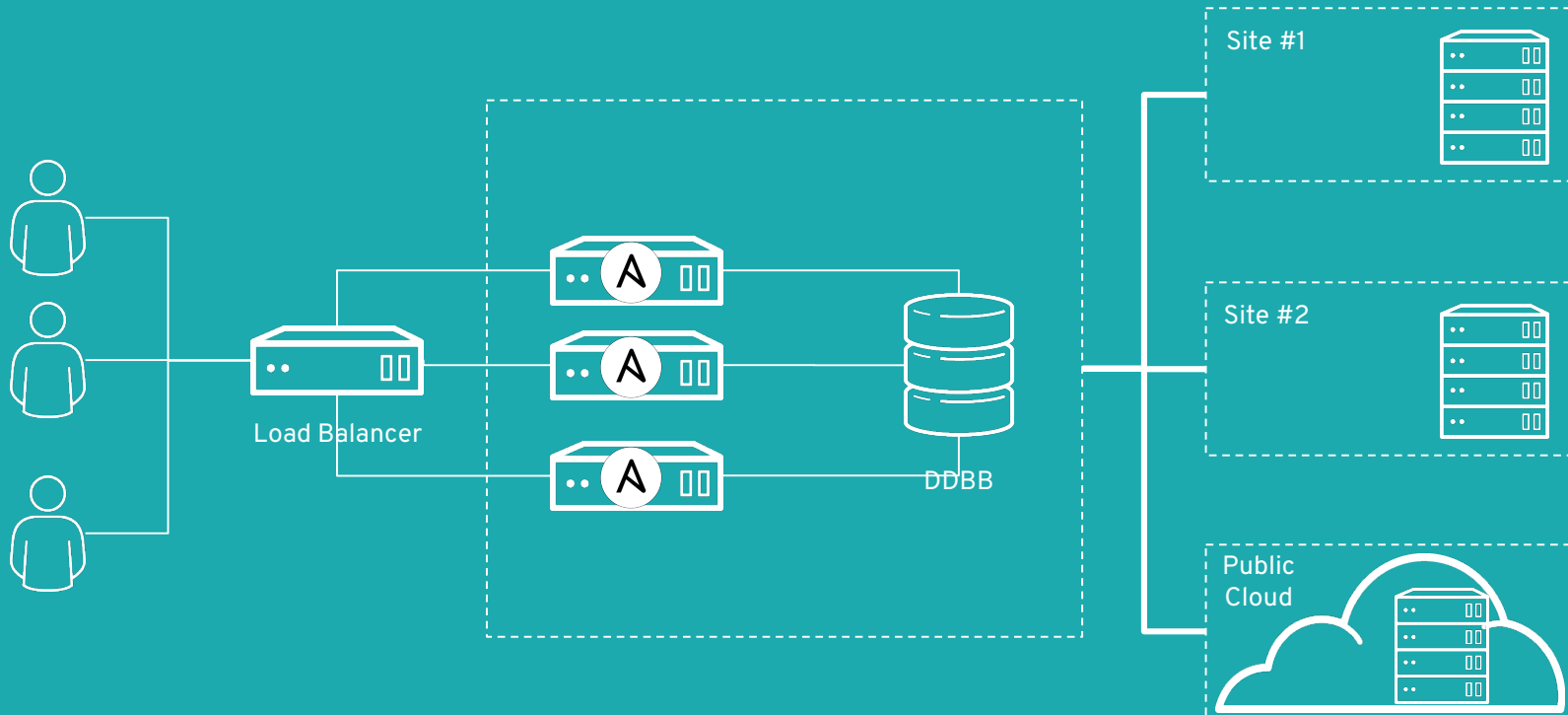
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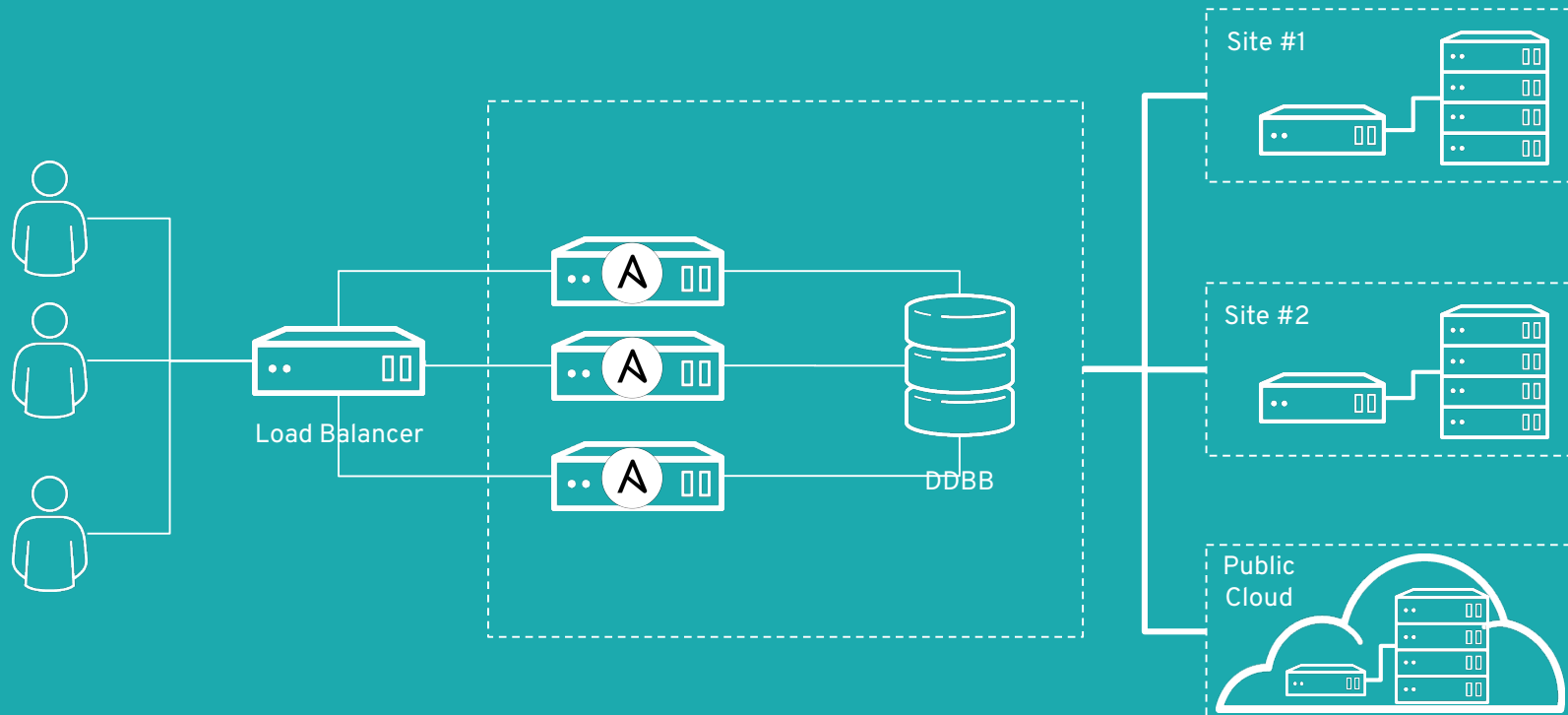


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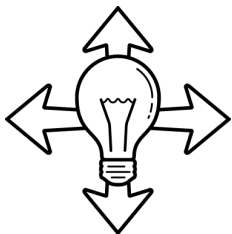


Will you need to scale your automation?

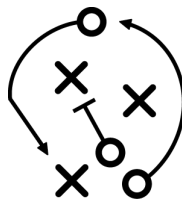




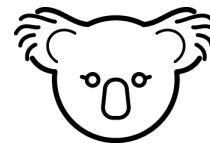
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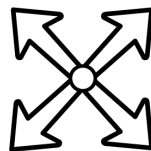
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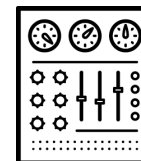
How will you integrate automation into your ecosystem?



What will be your source of TRUTH?



Will you need to scale your automation?



How will you govern your automation?





Most repeatable tasks





Most repeatable tasks



Tasks spending more time

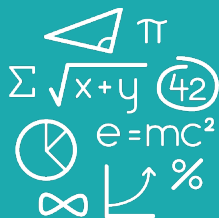




Most repeatable tasks



Tasks spending more time



Critical tasks - Tech Preview :)





DOTA DIW



DOTADIW



DOTADIW

“Do One Thing And Do It Well”

Doug McIlroy. Head of Bell Labs Computing Sciences Research Center, and inventor of the Unix pipe.

https://en.wikipedia.org/wiki/Unix_philosophy





Unix
Philosophy

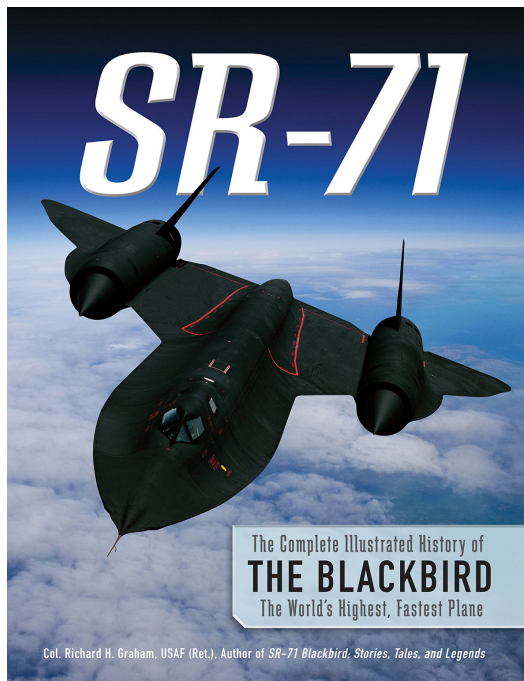
DOTADIW

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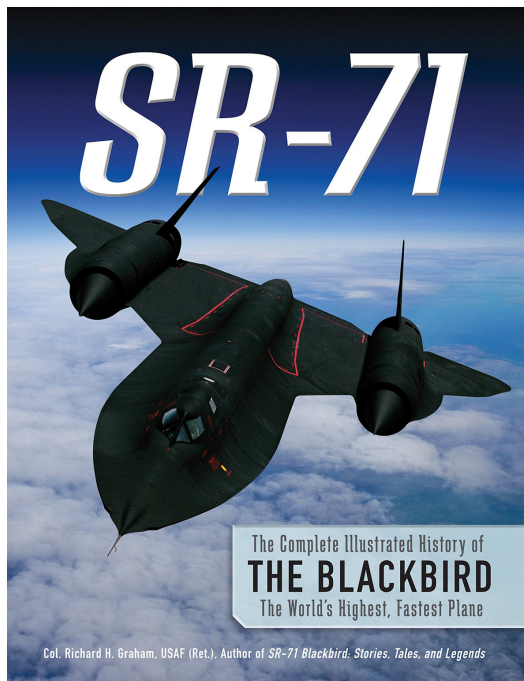
Doug McIlroy. Head of Bell Labs Computing Sciences Research Center, and inventory of the Unix pipe.

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KISS



KISS Principle

KISS principle.

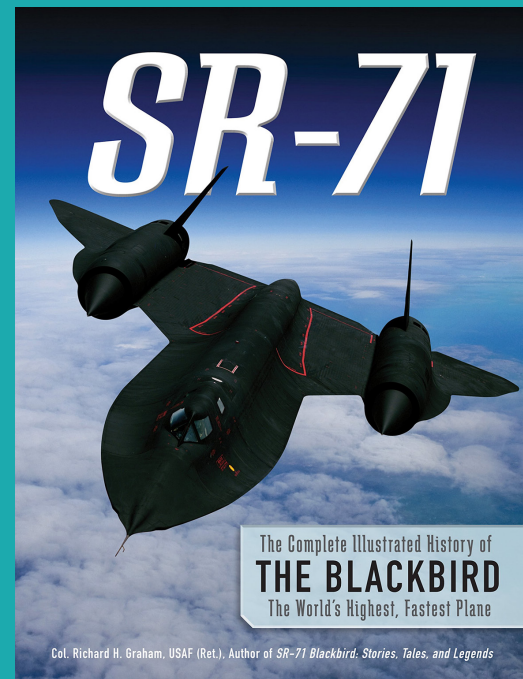
https://en.wikipedia.org/wiki/KISS_principle

... most systems work best if they are kept simple rather than made complicated; therefore simplicity should be a key goal in design.

Design principle noted by the U.S. Navy in 1960.

“Keep It Simple Stupid”

Kelly Johnson. Lead engineer at Lockheed






“Keep It Simple Stupid”

“Do One Thing And Do It Well”



“Keep It Simple Stupid”

“Do One Thing And Do It Well”

Happy  Automation!!!



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MUCHAS GRACIAS



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BEST PRACTICES

Ansible Content Best Practices - <https://mojo.redhat.com/community/communities-at-red-hat/management/automation-community-of-practice/blog/2018/04/07/ansible-content-development-and-best-practices>

List of Ansible Best Practices - <https://mojo.redhat.com/docs/DOC-1088389>

Best Practices - https://docs.ansible.com/ansible/latest/user_guide/playbooks_best_practices.html

Ansible Best Practices Official - https://docs.google.com/presentation/d/17AGy1fvhmADDoUYta9Pk-fsV1rLhdZ5cMph14xVceSE/edit?ts=5ae2f35e#slide=id.g2581dceba9_0_324

Ansible Best Practices from Startups to Enterprises - https://docs.google.com/presentation/d/1QooQPOQzZebq4t2QBAPOhuIDi5f0oYXSOJZNSHdVmjs/edit#slide=id.g1149ba6aef_0_5



Write programs that do one thing and do it well.

Write programs to work together.

Write programs to handle text streams, because
that is a universal interface.