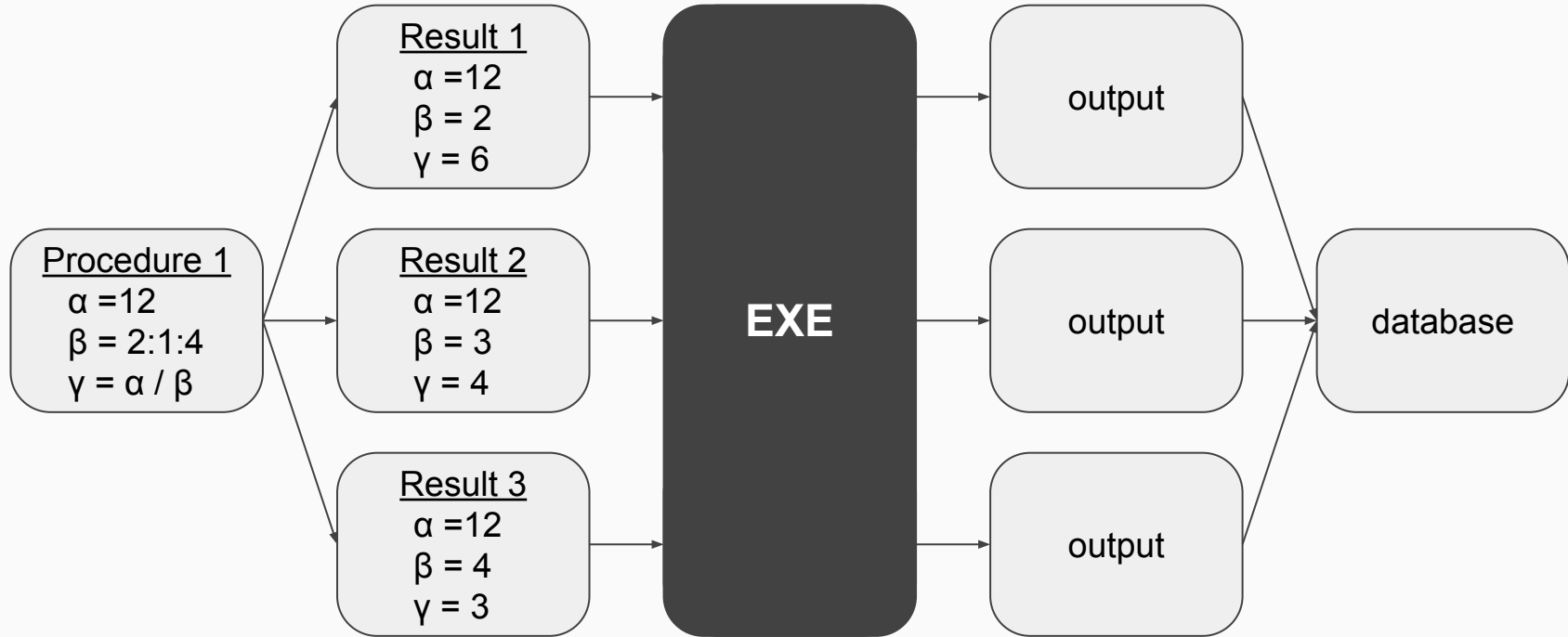


dan segal  
djsegal

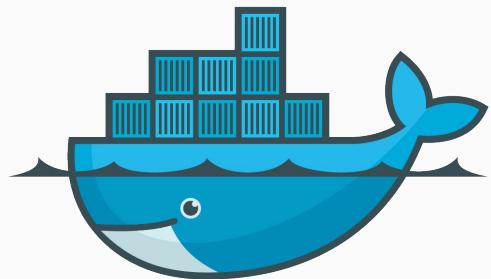
# ahab

automated high-throughput computing  
around black boxes

Ahab makes it easy to generate input and run the resulting simulations.



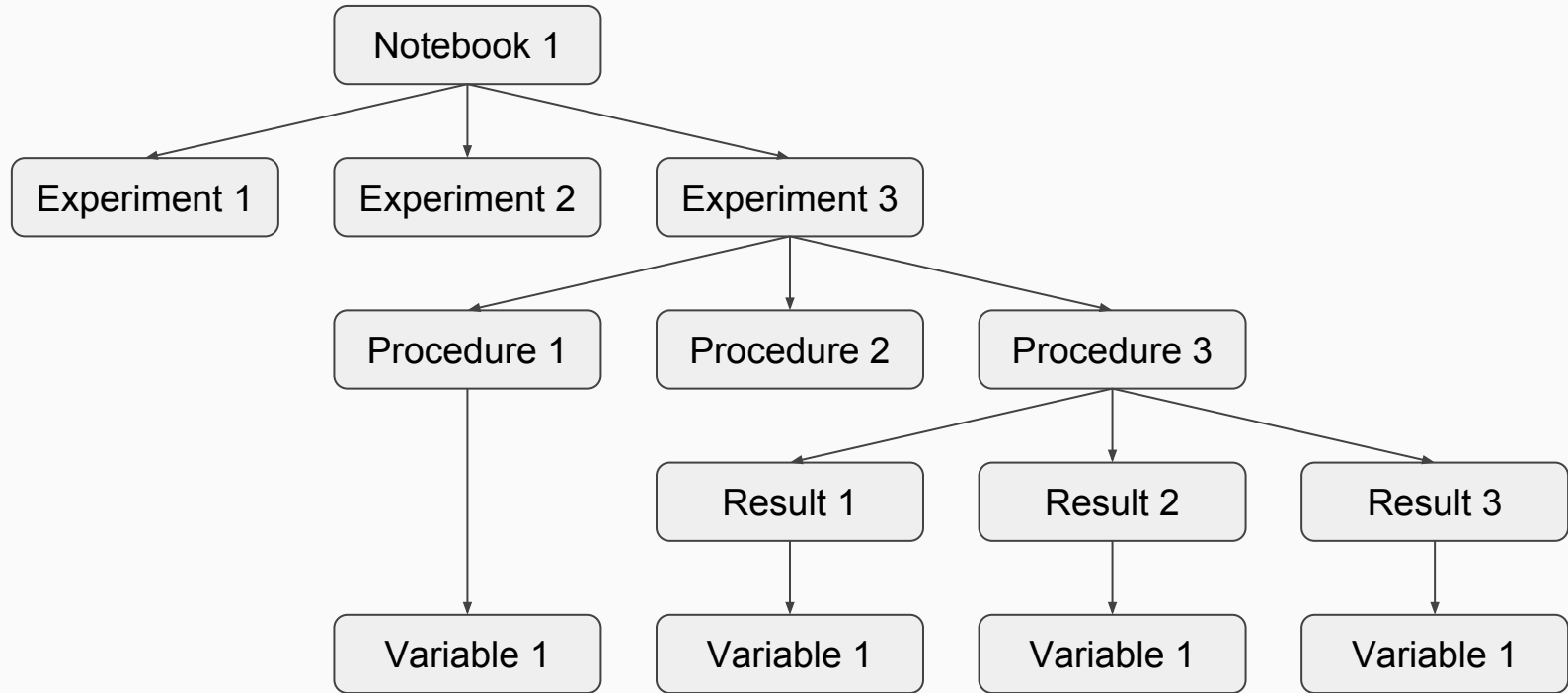
## Black Box Containers



docker

- Real Life
  - Before containers, farmers had to design their own shipping devices
  - Containers changed paradigm to filling one standardized model
- Code Life
  - “Docker containers wrap up a piece of software in a complete filesystem that contains everything it needs to run”

Give the lab notebook back to modern scientists.



# Ahab runs simulations on AWS

- Generates many input files using custom compiler
- Places resulting simulations on docker sandboxes
- Gathers output for data analysis and collaboration

**Ok, but why Julia...**

# Adding Julia to Ahab:

- Bridged gap towards MTC (Many-task Computing)
  - Ahab: HTC
  - Julia: HPC
  - $MTC = HTC + HPC$
- Forced the addition of:
  - A new language
  - Git access (repo handling)
  - Basic plotting tools

AND  
NOW

