

# **Implementation of modern CI/CD tools and methods for IOCs development in 100 Hz laser facility.**

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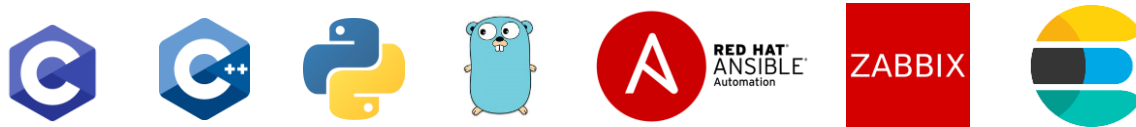
EPICS Collaboration Fall Meeting 2020

19-23 October 2020 Fritz-Haber-Institut



# E9 Controls LTD

- Provides software services for the labs
- Focused on transparency & simplicity





Science & Technology Facilities Council

Central Laser Facility

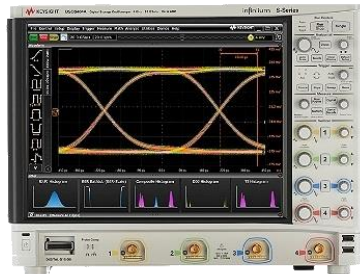
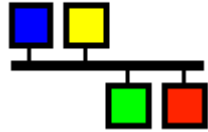


# INTRO

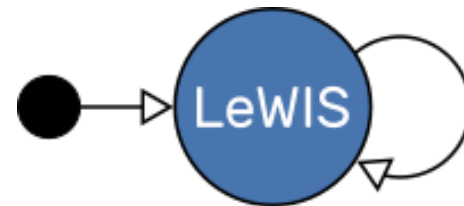
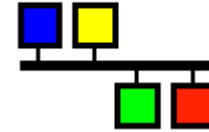




**EPICS**

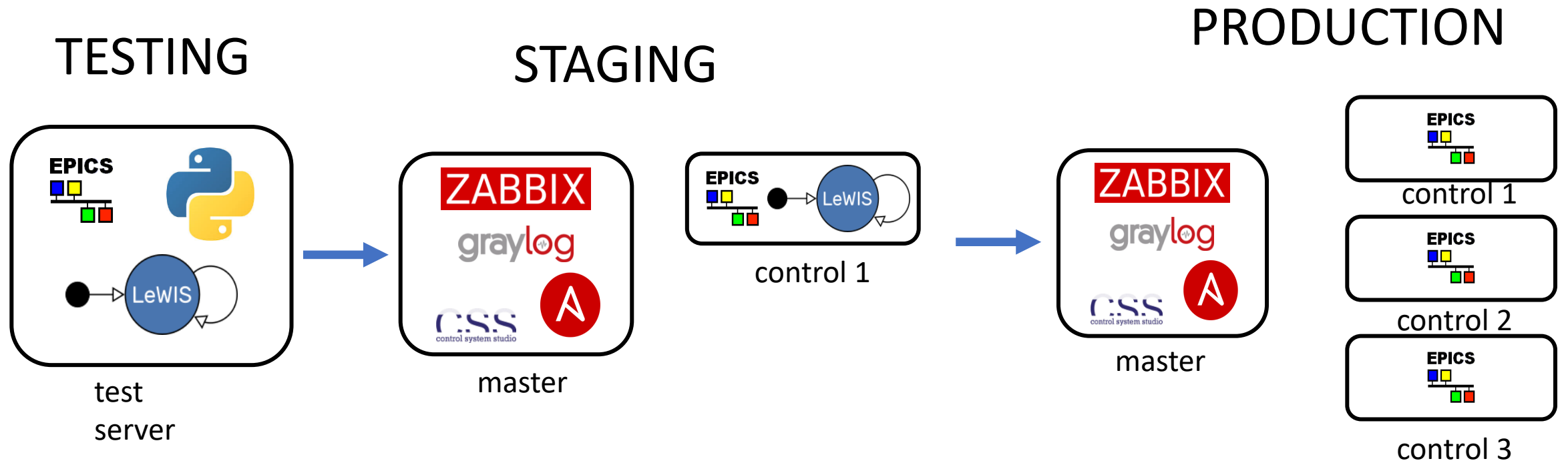


**EPICS**



# INFRASTRUCTURE

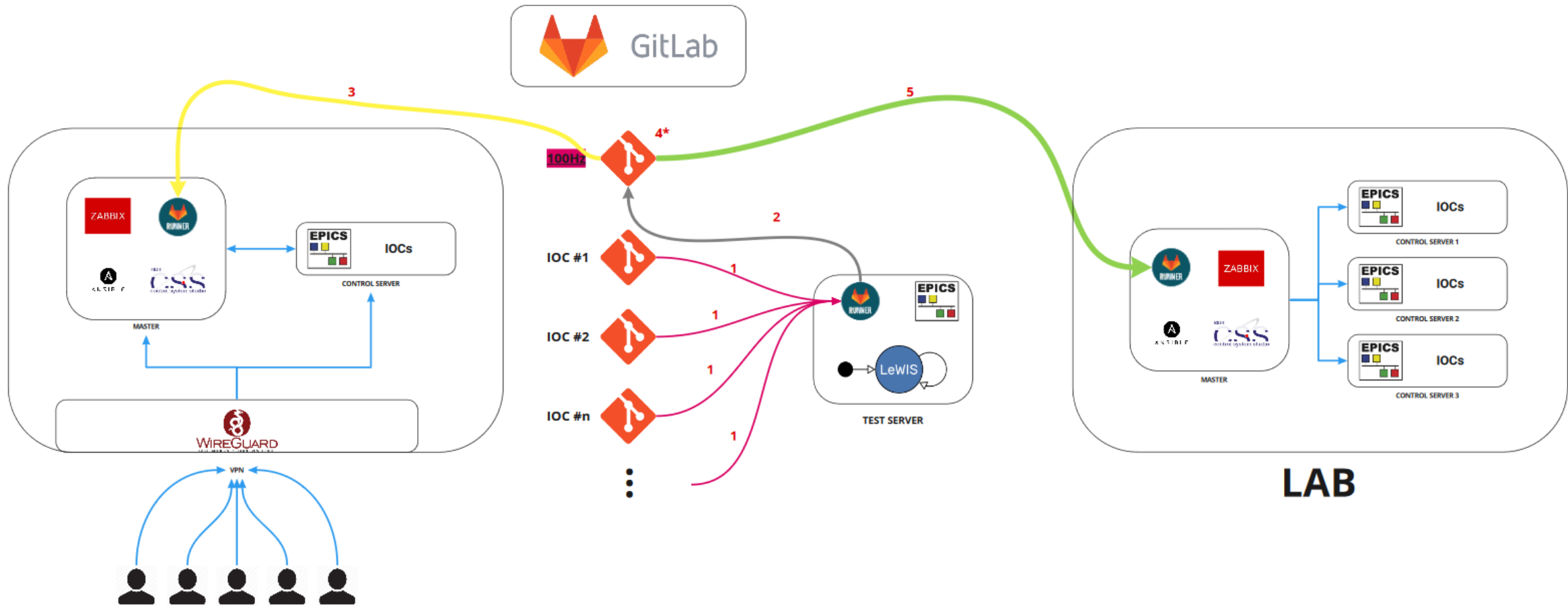
# COMMIT -> TESTING -> STAGING -> LAB



# CI/CD

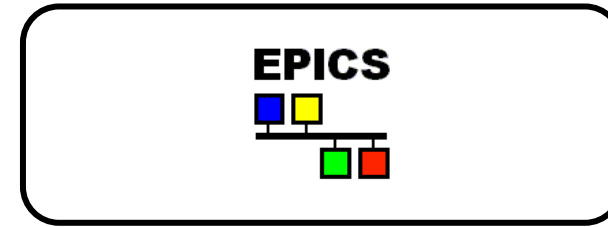
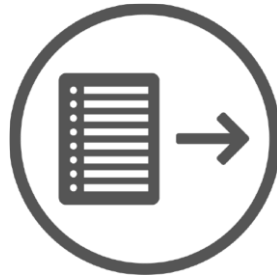


STAGING

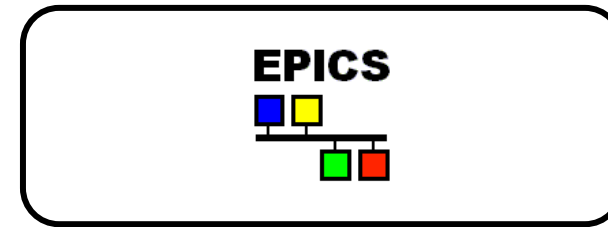


# DEPLOYMENT

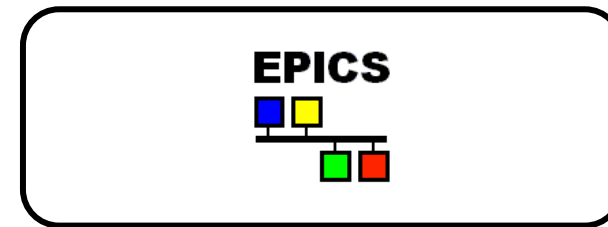




control 1



control 2



control 3



# IOC ROLE

```
roles:
# Laser Diode Rack
- role: ioc
  pv: CO-LASER-RACK
  id: 18
  ioc_with_simulator: yes
  ioc_with_monitoring: yes
  protocol_type: stream
  device_addr: "127.0.0.1:20001"
  simulator_port: 20001
  sha: master

# CHILLER - SMC HECR008-W5-FP
- role: ioc
  pv: FE-PA1-CHILLER
  id: 17
  ioc_with_simulator: yes
  ioc_with_monitoring: yes
  protocol_type: modbus
  device_addr: "127.0.0.1:20002"
  simulator_port: 20002
  sha: master

# KEYSIGHT DS0S404A Oscilloscope
- role: ioc
  pv: CO-SCOPE
  id: 15
  ioc_with_simulator: yes
  ioc_with_monitoring: yes
  protocol_type: stream
  device_addr: "127.0.0.1:20003"
  simulator_port: "20003"
  sha: master
```



THANK YOU

