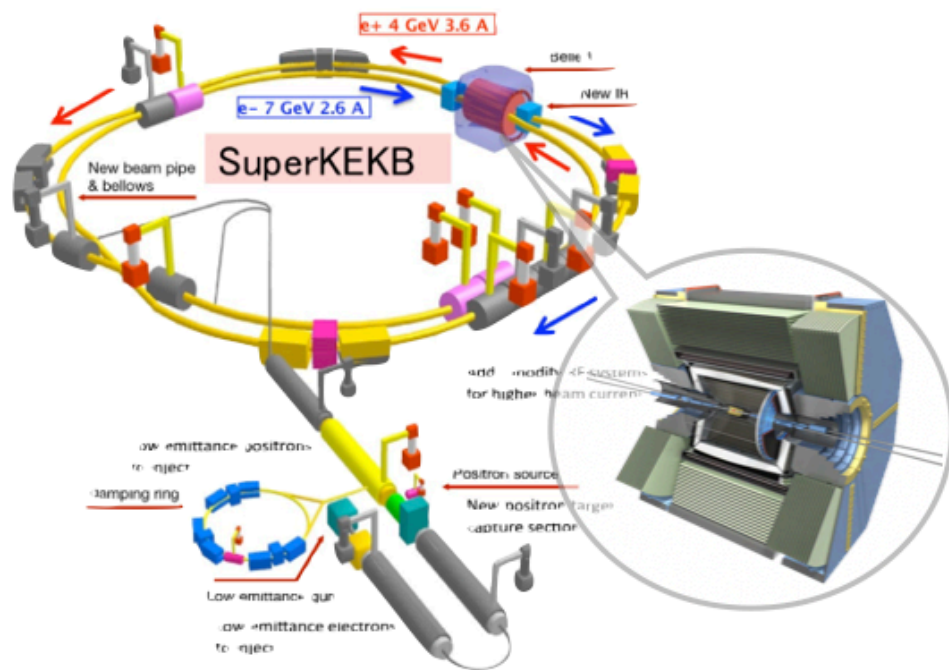


Improvement of analysis job efficiency at Belle II distributed computing system

Hikari Hirata
Nagoya Univ.

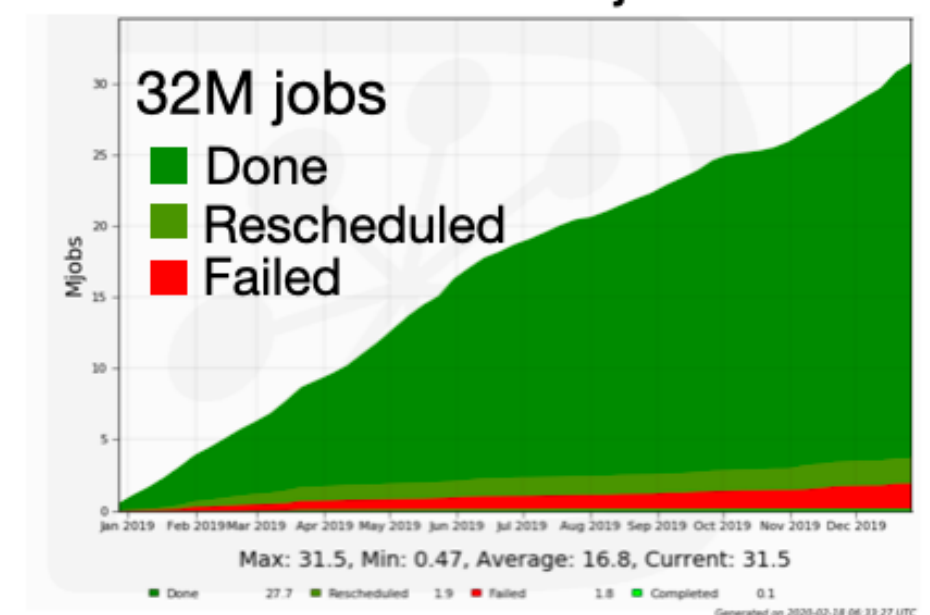


Belle II is next-generation B factory experiment with an e^+e^- collider at Tsukuba, Japan
→ Started to take data in 2019, and accumulate data by ~2030
(File size: O(100) PB)

Huge computing resources are required
→ Operate with distributed computing system

6% jobs were failed in 2019, and
Main cause is problematic analysis scripts
→ It makes analysis job efficiency worse...

Cumulative executed jobs in 2019



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To prevent mass failure of jobs, 2 features are developed

For all jobs,
Python Syntax Check
at local environment

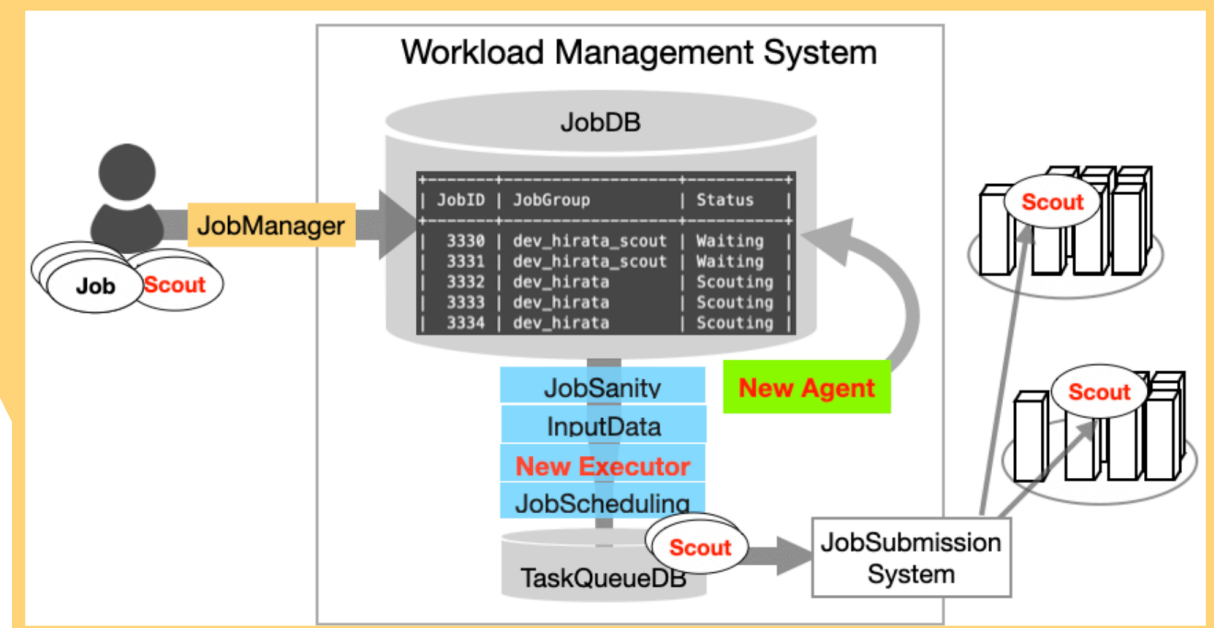
testSteering.py

```
import basf2 as b2
test = 'Hello World'
print(f'string value: {test}')
# new feature incompatible python2
print('test) # should detect by this feature
```

Output

```
[hikari@cw02 gbasf2_dev]$ gbasf2 testSteering.py
*****
File "testSteering.py", line 9
    print("test)
              ^
SyntaxError: EOL while scanning string literal
*****
Please fix the SyntaxError.
Are you sure to submit the project?
Please enter Y or N: 
```

For huge job submissions,
Execution of Scout Jobs
on distributed computing system



→ In this poster, overview about the system and the features will be given