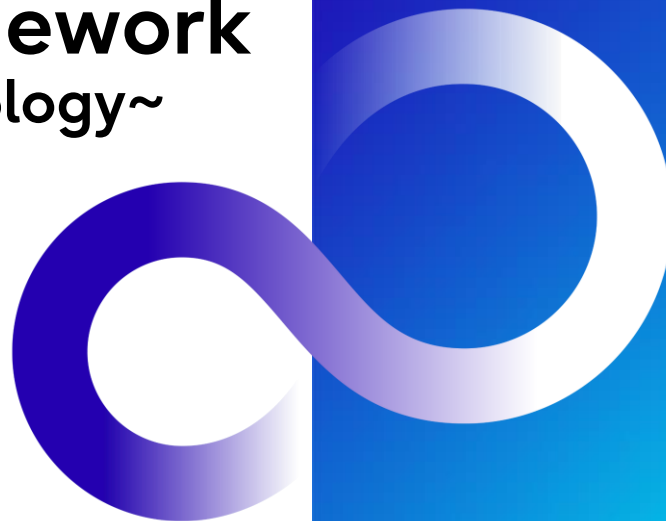


# Large Scale Graph AI Framework

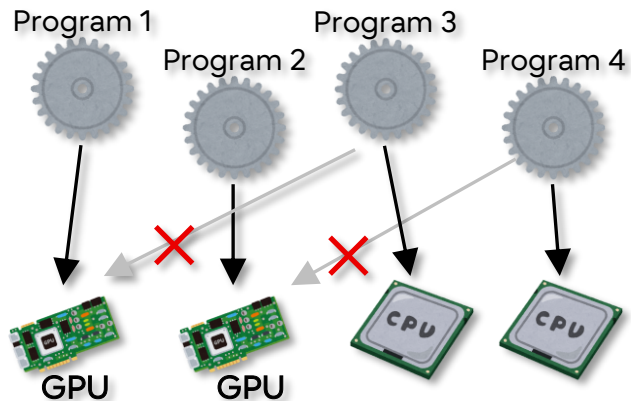
~Adaptive GPU Allocation Technology~

Fujitsu Ltd.



# Comparison of GPU allocation techniques

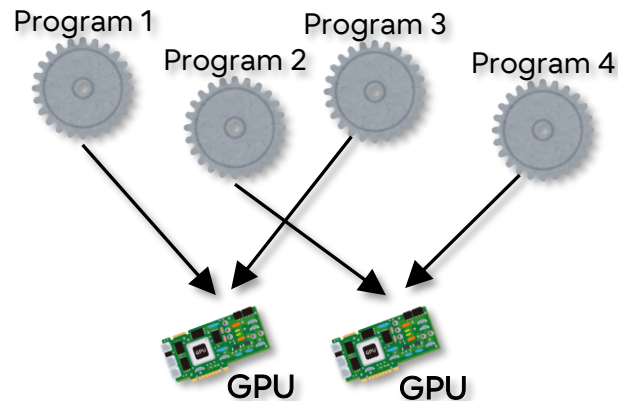
## Conventional GPU allocation



Difficult to share GPUs among multiple programs.



## Adaptive GPU allocation

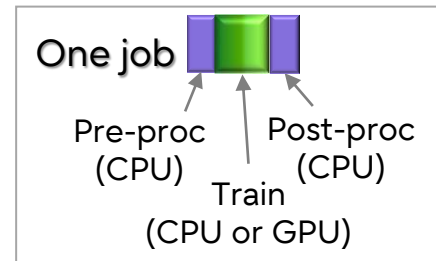
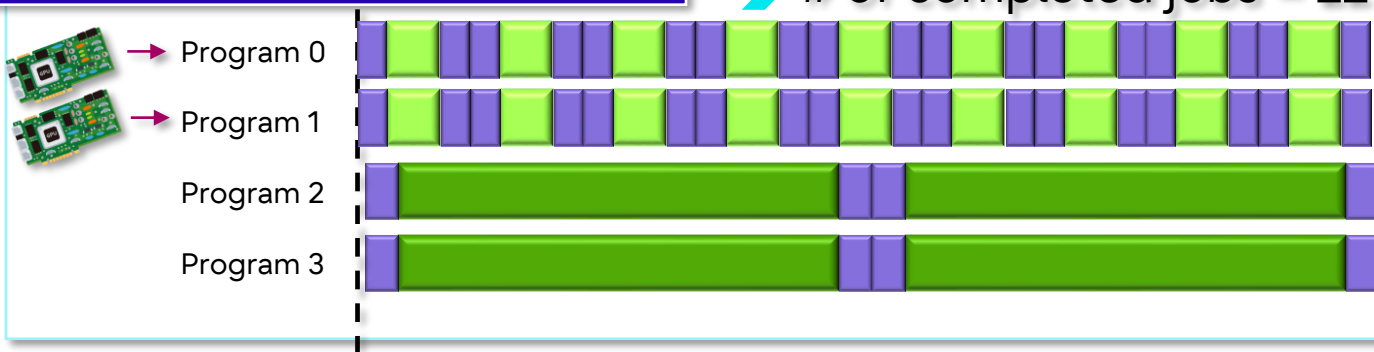


Enable to share GPUs among multiple programs.

# How our technology enables GPU sharing

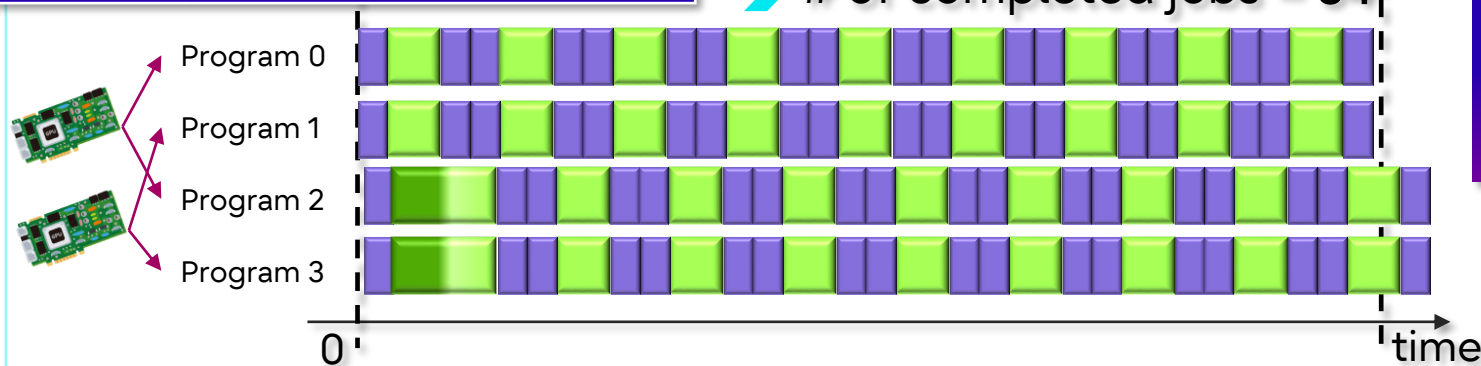
## Conventional GPU allocation

➤ # of completed jobs = 22



## Adaptive GPU allocation

➤ # of completed jobs = 34



Throughput Improvement = 55%

## Achievements

- The conventional method dedicates a GPU to each program, so the GPUs can have long idle time.
- Our method effectively switches GPUs among programs, as a result, reduces GPU idle time.
- This demo showed our technology increased GPU utilization and improved overall processing throughput by 55%.

## Merits of our technology

- Users do not need to wait long for other jobs to finish to run their GPU jobs.
- Our technology reduces the number of GPUs needed in a data center, resulting in lower operation and hardware cost.

# Thank you



Please see our press release  
"Fujitsu develops world's first technology  
for real time CPU and GPU processing optimization  
to address global GPU shortage"

<https://www.fujitsu.com/global/about/resources/news/press-releases/2023/1109-01.html>

