[SHIR] Concurrency vs Parallelism

Last updated by | Veena Pachauri | Mar 8, 2023 at 11:57 PM PST

Concept

- Concurrency: multiple tasks are processing at the same time. Specific to copy activity via SHIR scenario, you could understand it as the multiple diawp.exe processes running simultaneously. Also we have a SHIR setting called "concurrent jobs" (aka SHIR capacity) which is the same concept of concurrency.
- Parallelism: represent that tasks are divided into smaller sub-tasks that are processed seemingly simultaneously or parallel. In specific to copy activity, it takes effect with "Degree of copy parallelism" ("parallelCopies" in JSON payload).

How it helps with copy performance

Generally higher concurrency and higher parallelism can achieve better performance.

How to apply it for perf tuning

First of all, please keep in mind that IR is just one of the factors

Reference

https://www.geeksforgeeks.org/difference-between-concurrency-and-parallelism/