

1. What is the article about?

The article provides two examples of using vclocks and how it works, discusses pruning and that vclocks can get complicated.

2. What do vclocks guarantee?

data integrity

3. How do vclocks solve conflicts?

Creates a vector clock that will be a successor to all previously-seen vector clocks. So taking everything the previous two vector clocks have.

4. Explain the concept of pruning and reasons:

Pruning is used in the situation where vector clocks will grow and grow as more clients use a system over time. This is done by adding a timestamp to each field, and updating it to the current local time whenever that field is incremented. This timestamp is never used for vclock comparison — that is only for pruning purposes.

5. What are other timekeeping tools besides vclocks?

I will list down 3 more tools for capturing chronological and causal relationships in a distributed system (logical clocks).

- Lamport timestamps, which are monotonically increasing software counters.
- Version vectors, order replicas, according to updates, in an optimistic replicated system.
- Matrix clocks, an extension of vector clocks that also contains information about other processes' views of the system.