

1 ————— MODULE *CASConsensus* —————

*CASConsensus* is an operational semantics (or a reference model) of linearizable *CAS* registers.

*TODO*: how to model “linearizable *CAS* registers”? how to distinguish it from “sequentially consistent *CAS* registers”?

Refs (*TODO*: *Google* for other references on operational semantics):

- “Model Checking *Linearizability* via Refinement” at <https://www.microsoft.com/en-us/research/wp-content/uploads/2016/02/linearizability.pdf>
- “*MonkeyDB*: Effectively Testing Correctness under Weak Isolation Levels” at <https://www.microsoft.com/en-us/research/uploads/prod/2021/09/main.pdf>
- “Using Lightweight Formal Methods to Validate a Key-Value Storage Node in *Amazon S3*” at <https://assets.amazon.science/07/6c/81bfc2c243249a8b8b65cc2135e4/using-lightweight-formal-methods-to-validate-a-key-value-storage-node-in-amazon-s3.pdf>

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\ \* Modification History

\ \* Last modified *Wed Jul 27 10:08:20 CST 2022* by *hengxin*

\ \* Created *Wed Jul 27 00:22:59 CST 2022* by *hengxin*