

REPLICATED OBJECT NOTATION: AN OVERVIEW



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Replicated Object Notation

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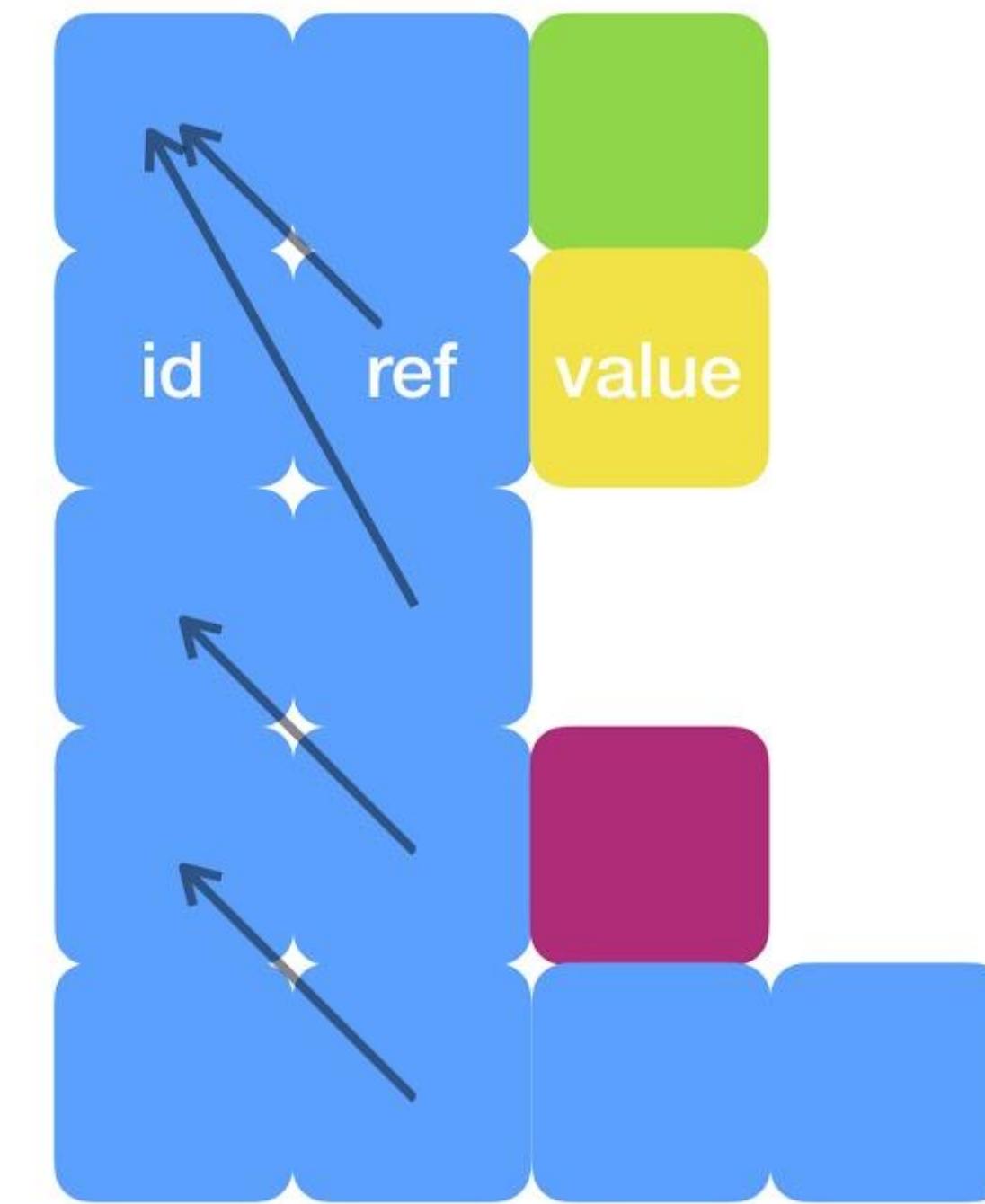
DecWeb vs Merkle:

- The chunked model is too coarse!
- In the op model, hashes take more space than the ops!
- Concurrent writes need merges!
DAG has joins! (Lattice)



RON ops: state is change

- Immutable ops with ids, made of atoms:
 - int,
 - float,
 - string,
 - UUID
- References (refs) form *causal trees*



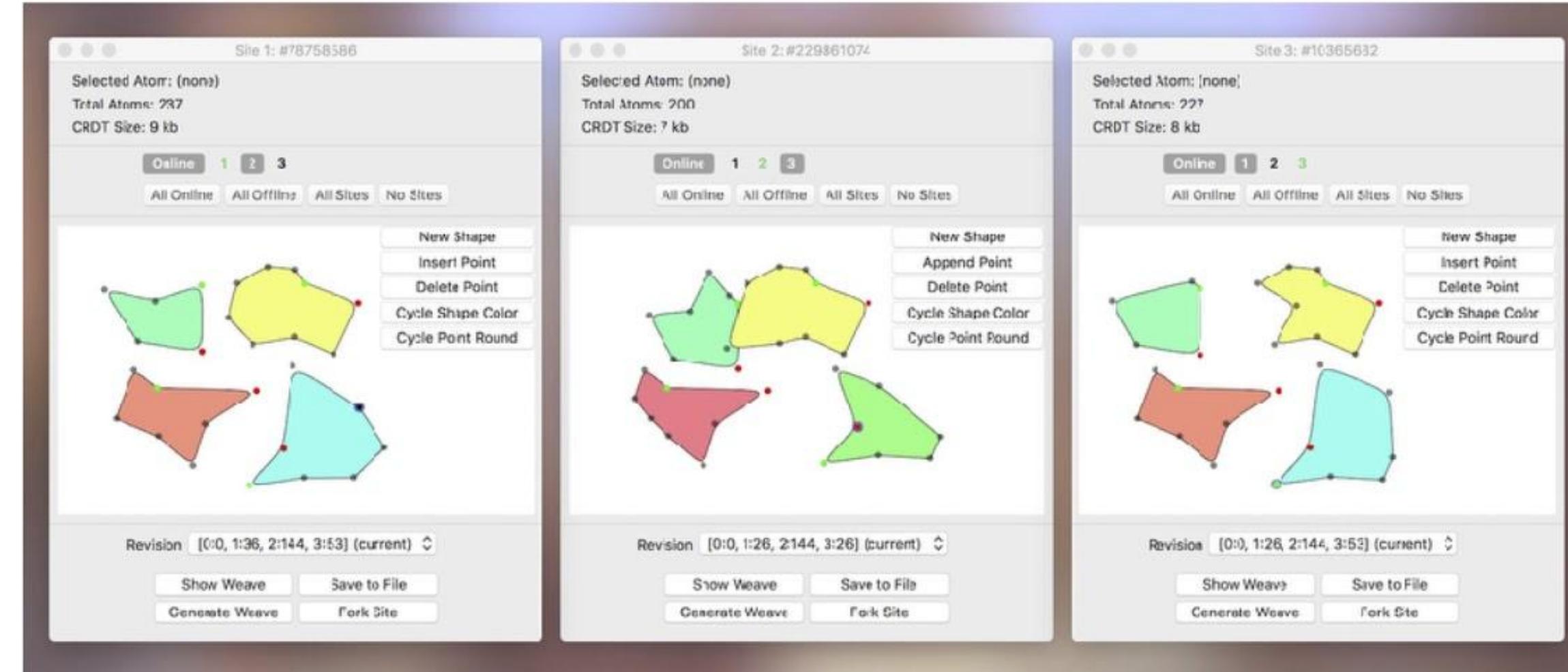
The XCT model
(extended causal trees)

Hashing

- The *entry point* concept: hash ~ IP address
- Implicit hashing (define, calculate, don't store)
- Use hashes every step of the way, *implicitly*

CRDTs

- Log-structured CRDTs (op/state/delta)
- The causal branching model (git-ernet)
- The XCT model (in progress)



<http://archagon.net/blog/2018/03/24/data-laced-with-history/>