

# LPDSTM Design

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## 1 Design Space

STM design space consists of many axes. Some of them are:

1. Contention management.
2. Conflict detection.
3. Ownership record table configuration (size of the table, size of the single lock stripe).
4. Memory management approach (laziness allowed).
5. Various timeouts.

## 2 Workload (Transaction) characteristics

Workloads and single transactions can be characterized according to following axes:

1. Transaction size.
2. Read ratio (special case—read-only transaction).
3. Dominant abort reason (write/write conflicts, validation failure during reads and writes and validation failure during commit).
4. Relative abort time (close to start, close to end, commit-time etc.).
5. Ratio of transactional operations.
6. Contention transactions see.