

Benchmark Test of DBM Brothers

This benchmark test is to calculate processing time (real time) and file size of database.

Writing test is to store 1,000,000 records. Reading test is to fetch all of its records.

Both of the key and the value of each record are such 8-byte strings as '00000001', '00000002', '00000003'...

Tuning parameters of each DBM are set to display its best performance.

Platform: Linux 2.6.16 kernel, EXT2 file svstem, Intel Core2 2.0GHz CPU, 2048MB RAM, ThinkPad T60

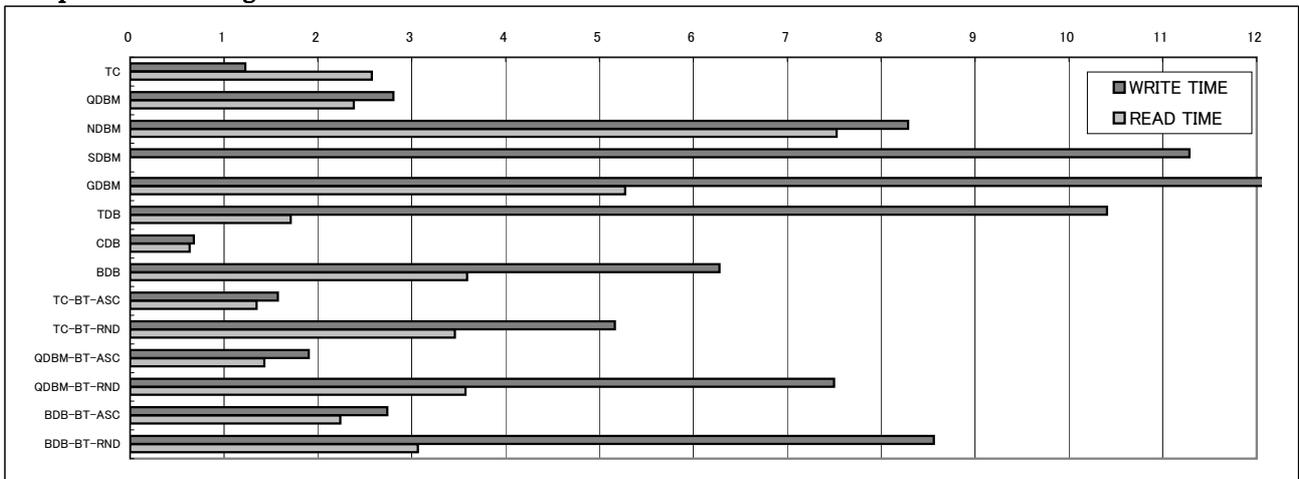
Result

NAME	DESCRIPTION	WRITE TIME	READ TIME	FILE SIZE
TC	Tokyo Cabinet 1.0.4	1.228	2.574	42,583,208
QDBM	Quick Database Manager 1.8.77	2.805	2.383	56,582,932
NDBM	New Database Manager 5.1	8.288	7.526	834,003,968
SDBM	Substitute Database Manager 1.0.2	11.284	--	621,281,280
GDBM	GNU Database Manager 1.8.3	25.732	5.273	84,774,912
TDB	Trivial Database 1.0.6	10.405	1.710	52,281,344
CDB	Tiny Constant Database 0.75	0.680	0.635	40,002,048
BDB	Berkeley DB 4.4.20	6.278	3.589	41,938,944
TC-BT-ASC	B+ tree API of TC (ascending order)	1.573	1.347	32,209,795
TC-BT-RND	B+ tree API of TC (at random)	5.164	3.460	12,466,925
QDBM-BT-ASC	B+ tree API of QDBM (ascending order)	1.902	1.429	40,620,715
QDBM-BT-RND	B+ tree API of QDBM (at random)	7.498	3.571	15,731,675
BDB-BT-ASC	B+ tree API of BDB (ascending order)	2.739	2.239	57,999,360
BDB-BT-RND	B+ tree API of BDB (at random)	8.561	3.066	29,818,880

Unit of time is seconds. Unit of size is bytes.

Read time of SDBM can not be calculated because its database is broken when more than 100000 records.

Graph of Processing Time



Graph of File Size

