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 bytes strings as `00000001', `00000002', `00000003'...
Tuning parameters of each DBM are set to display its best performance.

Platform: Linux 2.4 kernel, EXT2 file system, Pentium3 500MHz CPU, 192MB RAM, Thinkpad 240Z
Compilation: gcc 3.3.1 (using -O3), glibc 2.2.4

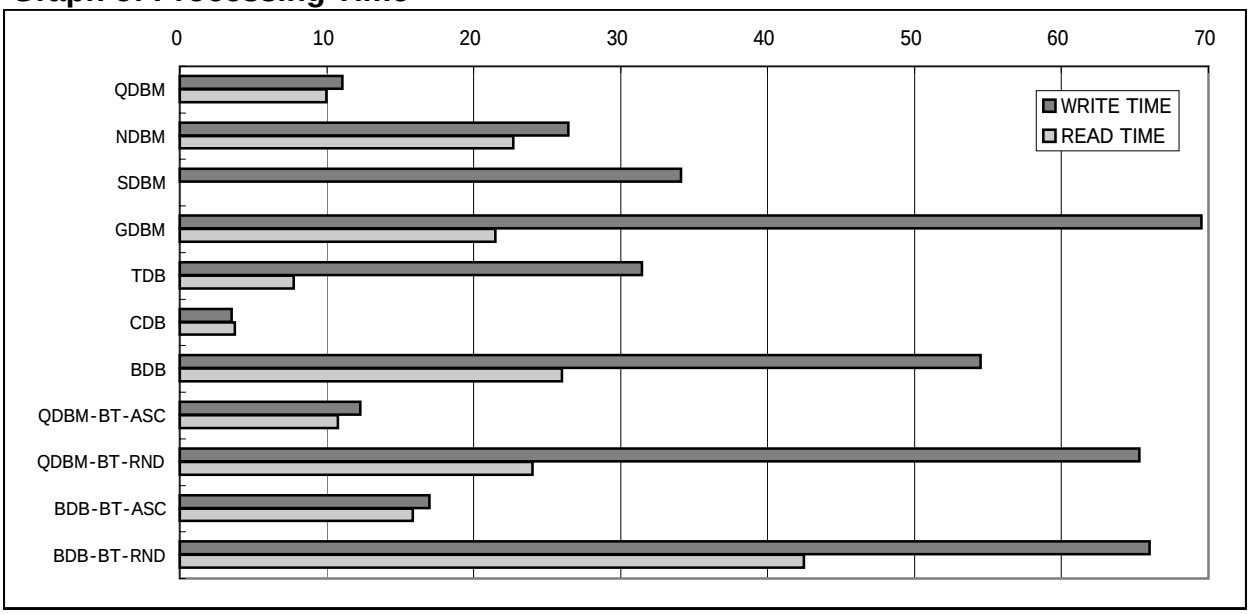
Result

NAME	DESCRIPTION	WRITE TIME	READ TIME	FILE SIZE
QDBM	Quick Database Manager 1.7.6	11.06	9.96	51161
NDBM	New Database Manager 5.1	26.43	22.71	814457
SDBM	Substitute Database Manager 1.0.2	34.09	0.00	606720
GDBM	GNU Database Manager 1.8.3	69.53	21.47	82788
TDB	Trivial Database 1.0.6	31.44	7.75	51056
CDB	Constant Database 0.75	3.54	3.76	39065
BDB	Berkeley DB 4.1.25	54.50	26.01	65537
QDBM-BT-ASC	B+ tree API of QDBM (ascending order)	12.27	10.74	30365
QDBM-BT-RND	B+ tree API of QDBM (at random)	65.30	24.01	19150
BDB-BT-ASC	B+ tree API of BDB (ascending order)	17.00	15.84	30099
BDB-BT-RND	B+ tree API of BDB (at random)	65.99	42.47	26867

Unit of time is seconds. Unit of size is kilobytes.

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