

PolePosition

the open source database benchmark

<http://www.polepos.org>

Participating teams

db4o

the open source object database for Java and .NET

<http://www.db4o.com>

HXTT DBF

lightweight 100% Java engine for Xbase database (dbase, Visual DBASE, Slx Driver, SoftC, Codebase, Clipper, Foxbase, Foxpro, VFP(3.0,5.0,7.0,8.0,9.0), xHarbour, Halcyon, Apollo, Goldmine, and BDE)

<http://www.hxtt.com/dbf.html>

MySQL

the world's most popular open source database

<http://www.mysql.com>

Mckoi

an open source Java SQL database system

<http://mckoi.com/database/>

Derby

the Apache Derby project

<http://incubator.apache.org/derby/>

HSQldb

lightweight 100% Java SQL database engine

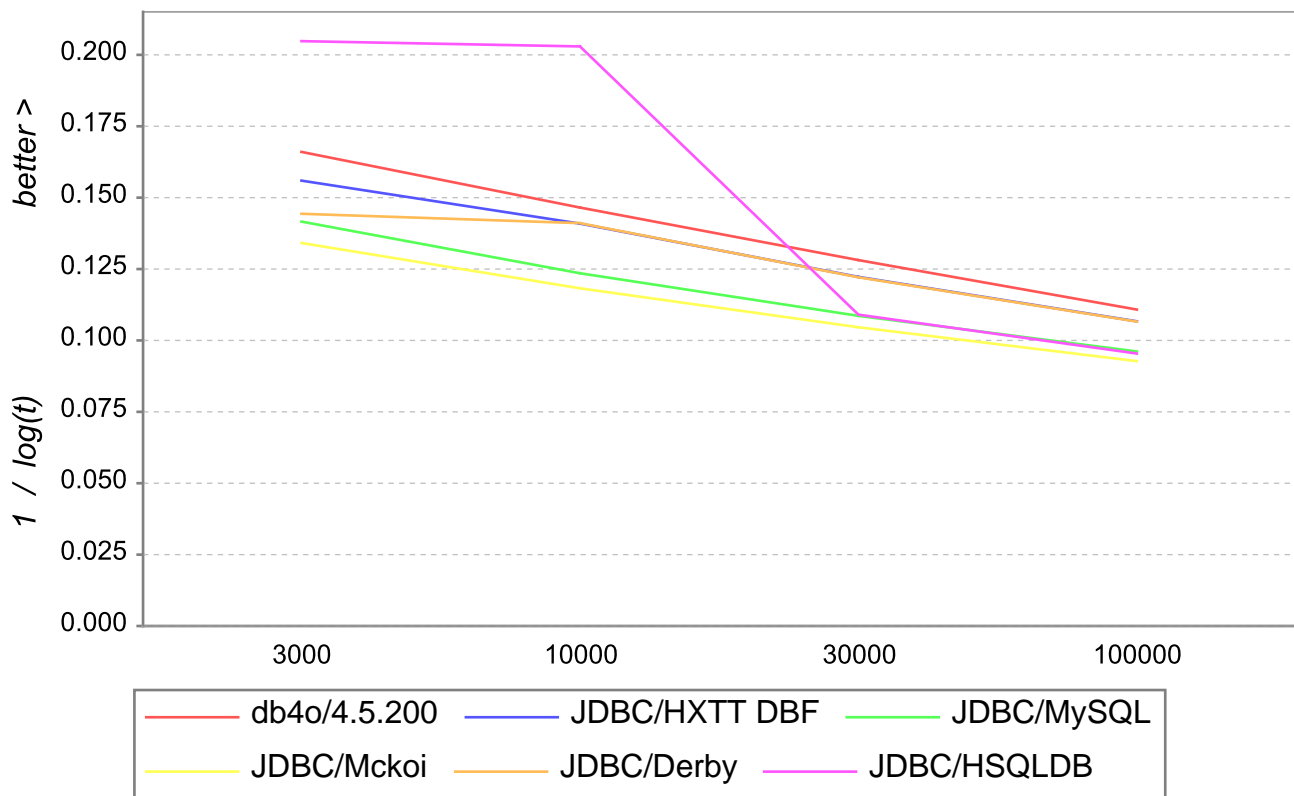
<http://hsqldb.sourceforge.net/>

Circuit: Melbourne

writes, reads and deletes unstructured flat objects of one kind in bulk mode

Lap: write

t [time in ms]	objects:3000	objects:10000	objects:30000	objects:100000
db4o/4.5.200	413	920	2451	8302
JDBC/HXTT DBF	609	1208	3569	11753
JDBC/MySQL	1166	3279	9969	32934
JDBC/Mckoi	1730	4702	14160	48161
JDBC/Derby	1020	1198	3601	11852
JDBC/HSQldb	132	138	9627	35603

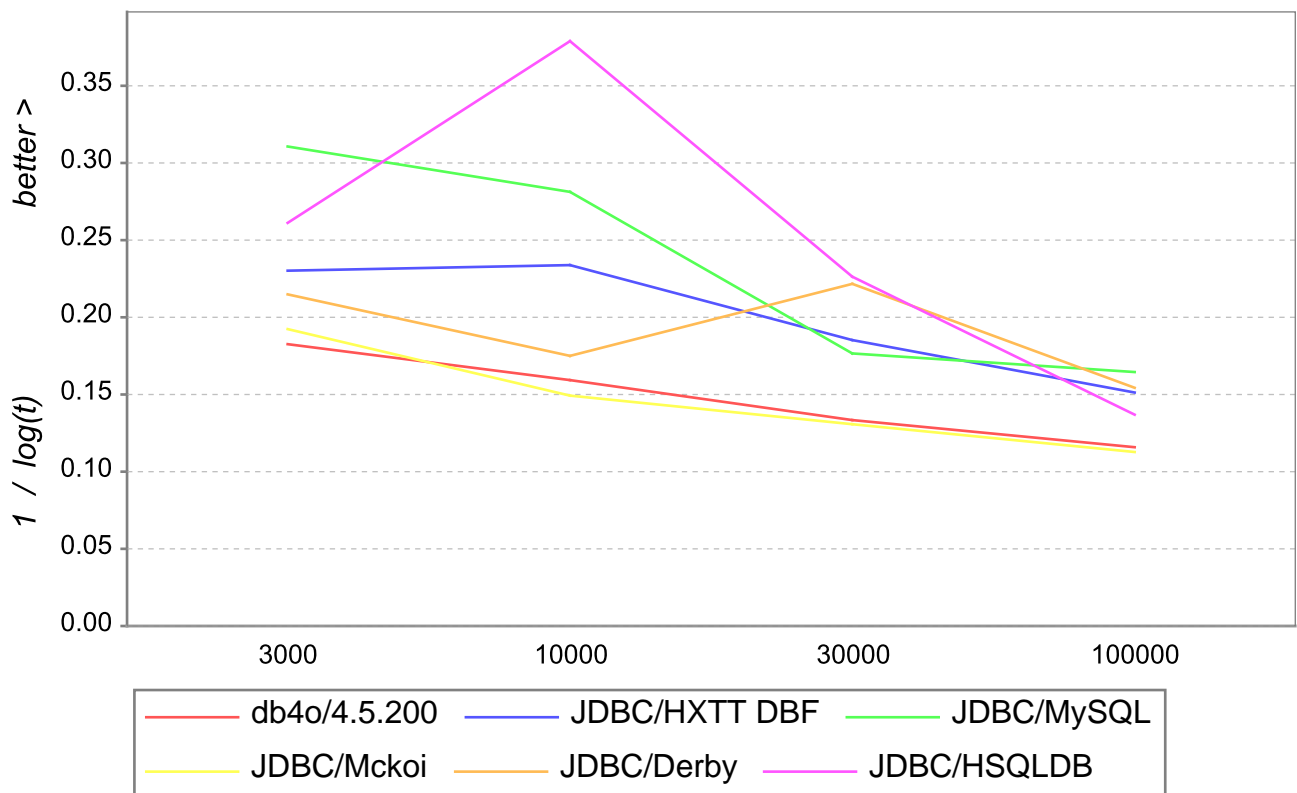


Circuit: Melbourne

writes, reads and deletes unstructured flat objects of one kind in bulk mode

Lap: read

t [time in ms]	objects:3000	objects:10000	objects:30000	objects:100000
db4o/4.5.200	239	532	1799	5610
JDBC/HXTT DBF	77	72	221	743
JDBC/MySQL	25	35	288	436
JDBC/Mckoi	181	812	2097	7122
JDBC/Derby	105	303	91	651
JDBC/HSQldb	46	14	83	1485

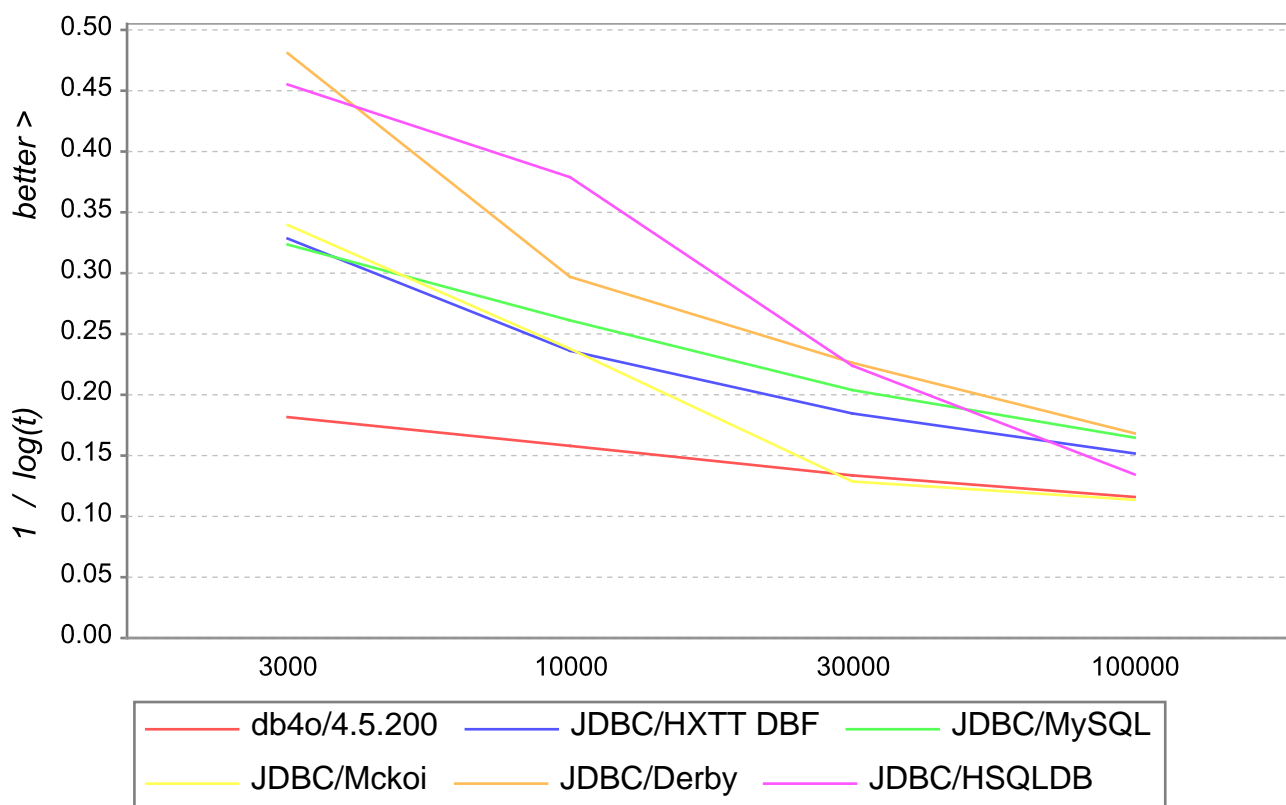


Circuit: Melbourne

writes, reads and deletes unstructured flat objects of one kind in bulk mode

Lap: read_hot

t [time in ms]	objects:3000	objects:10000	objects:30000	objects:100000
db4o/4.5.200	246	561	1770	5564
JDBC/HXTT DBF	21	69	225	728
JDBC/MySQL	22	46	135	433
JDBC/Mckoi	19	67	2368	6647
JDBC/Derby	8	29	83	381
JDBC/HSQldb	9	14	87	1696

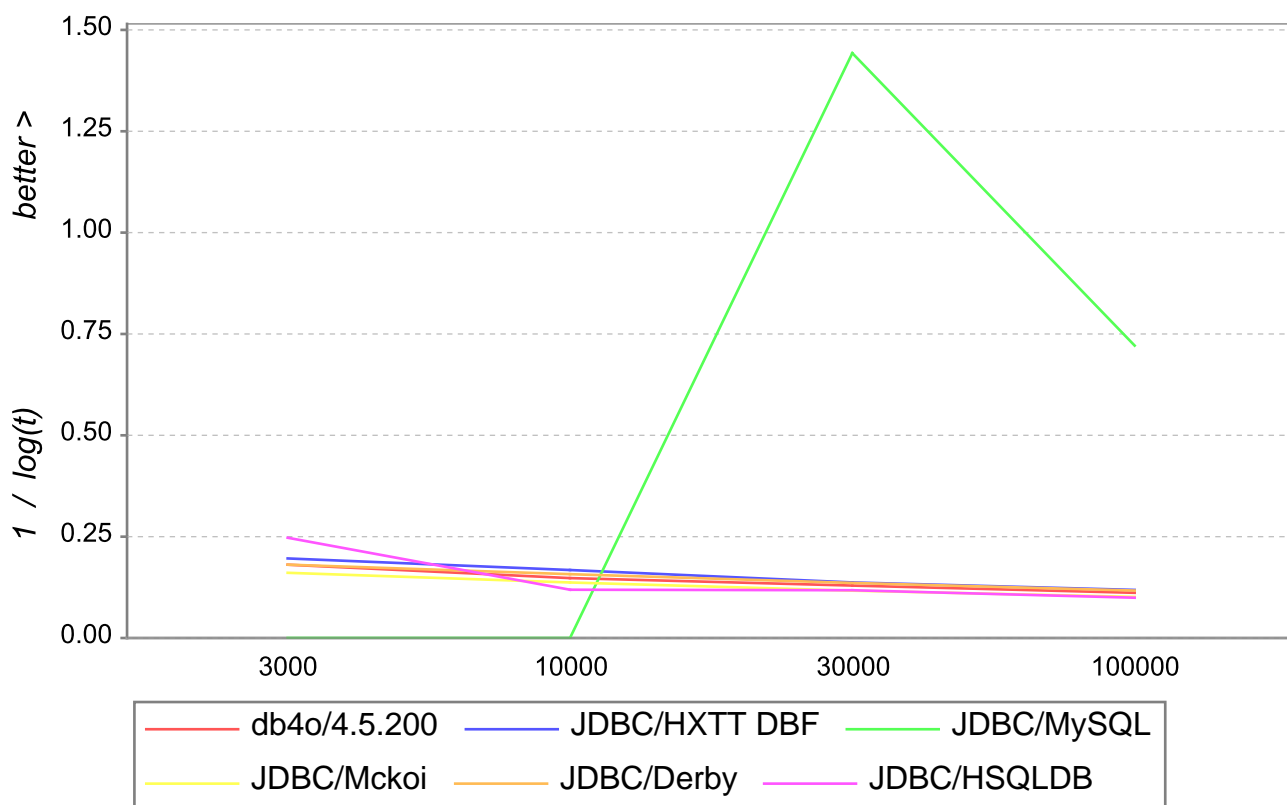


Circuit: Melbourne

writes, reads and deletes unstructured flat objects of one kind in bulk mode

Lap: delete

t [time in ms]	objects:3000	objects:10000	objects:30000	objects:100000
db4o/4.5.200	252	868	2278	7809
JDBC/HXTT DBF	163	388	1471	4576
JDBC/MySQL	1	1	2	4
JDBC/Mckoi	500	1481	5213	19052
JDBC/Derby	251	572	1572	5129
JDBC/HSQldb	57	4420	4848	23296

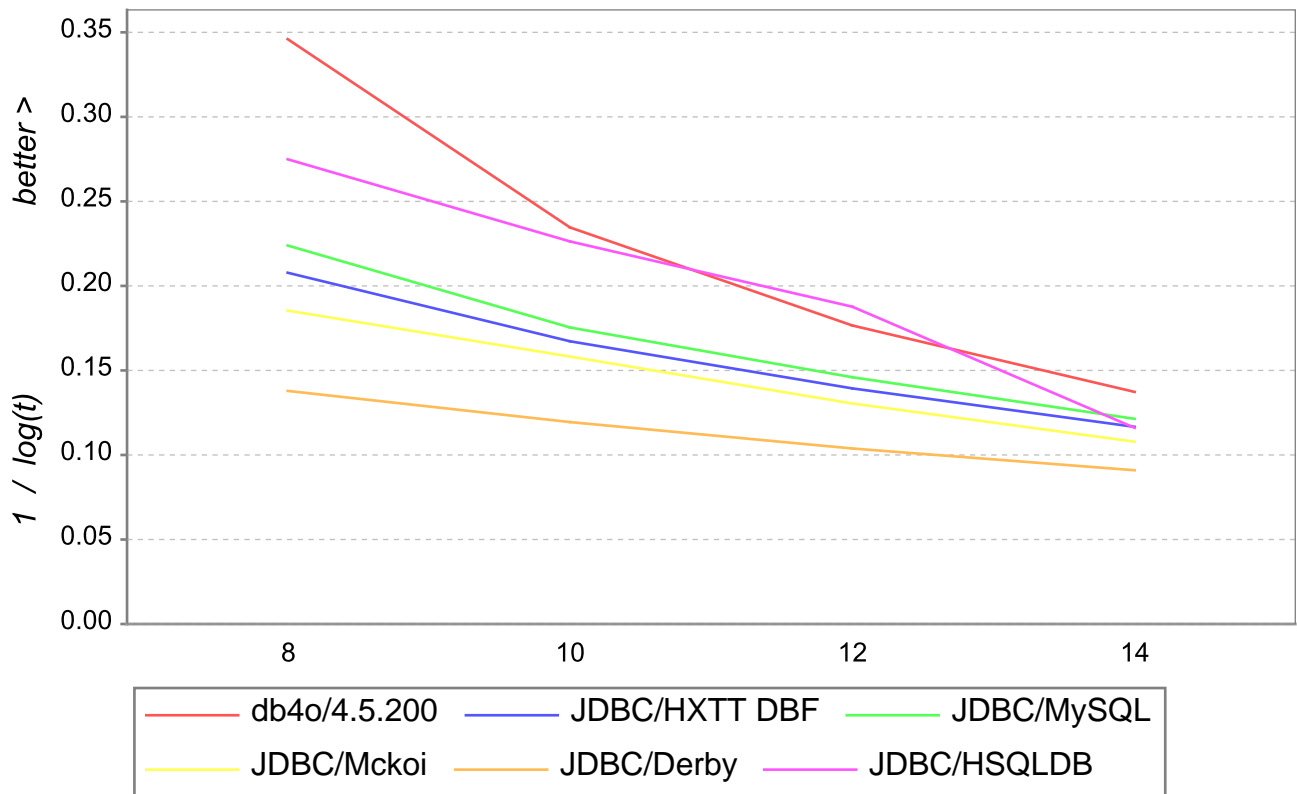


Circuit: Sepang

writes, reads and then deletes an object tree

Lap: write

t [time in ms]	depth:8	depth:10	depth:12	depth:14
db4o/4.5.200	18	71	288	1456
JDBC/HXTT DBF	123	395	1306	5296
JDBC/MySQL	87	299	944	3787
JDBC/Mckoi	220	556	2134	10648
JDBC/Derby	1411	4320	15220	59518
JDBC/HSQLDB	38	83	206	5522

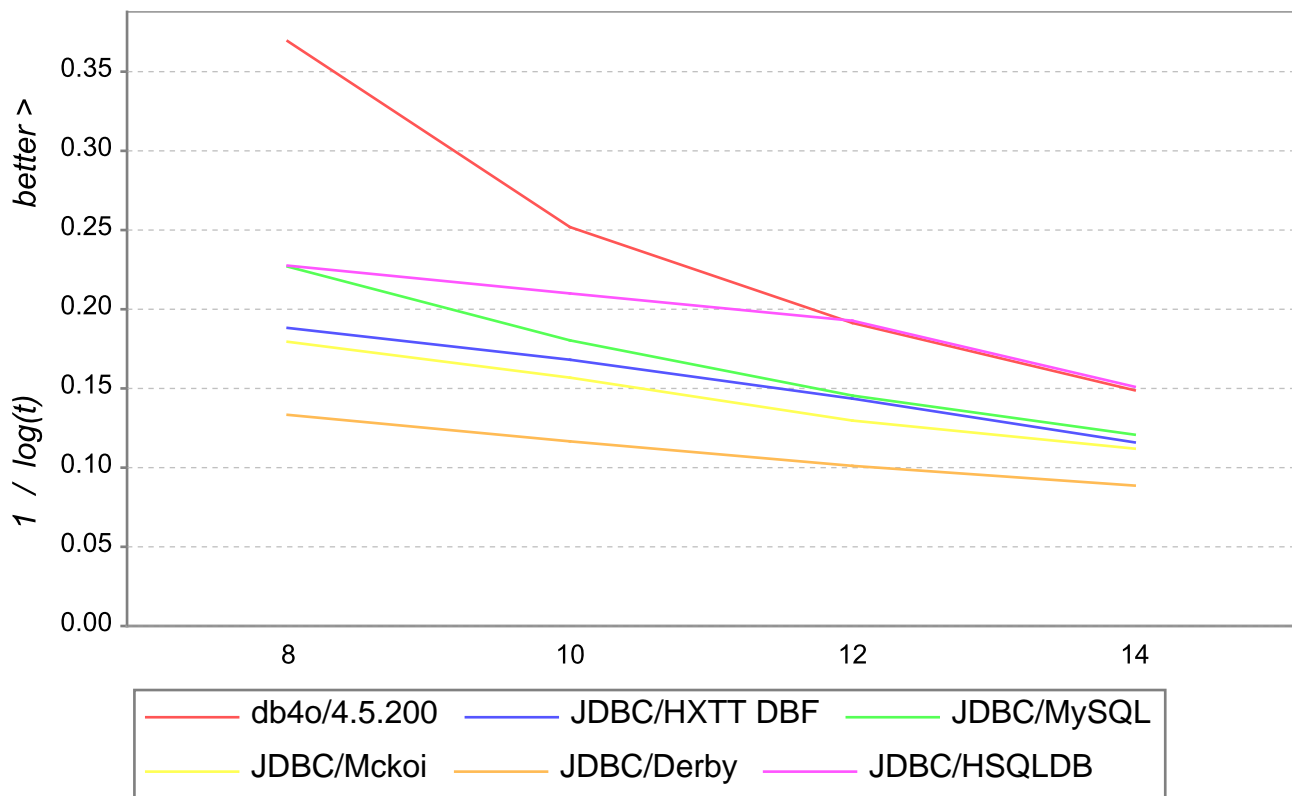


Circuit: Sepang

writes, reads and then deletes an object tree

Lap: read

t [time in ms]	depth:8	depth:10	depth:12	depth:14
db4o/4.5.200	15	53	186	828
JDBC/HXTT DBF	203	383	1058	5568
JDBC/MySQL	82	256	966	3933
JDBC/Mckoi	263	588	2228	7549
JDBC/Derby	1807	5313	19716	79231
JDBC/HSQldb	81	117	179	750

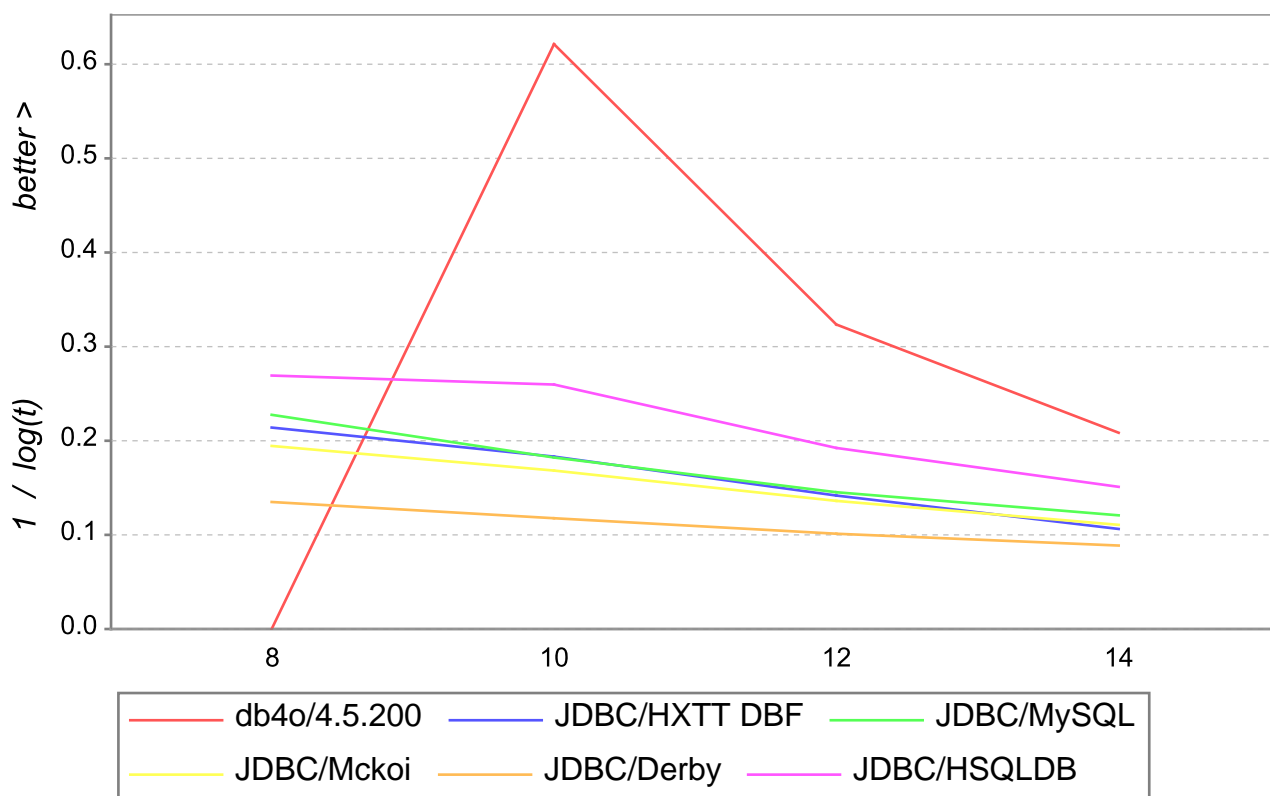


Circuit: Sepang

writes, reads and then deletes an object tree

Lap: read_hot

t [time in ms]	depth:8	depth:10	depth:12	depth:14
db4o/4.5.200	1	5	22	121
JDBC/HXTT DBF	107	235	1154	12168
JDBC/MySQL	81	242	974	3938
JDBC/Mckoi	171	380	1552	8393
JDBC/Derby	1652	4896	19492	78993
JDBC/HSQldb	41	47	181	750

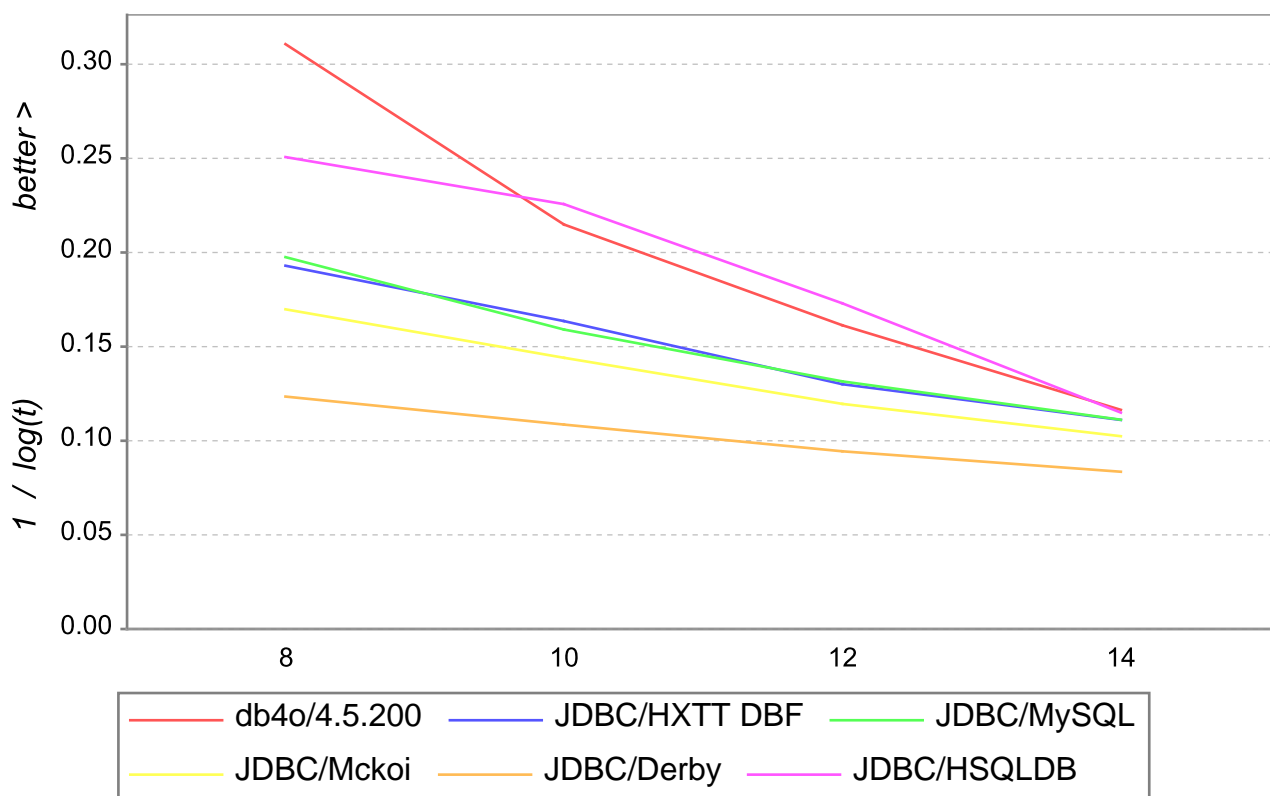


Circuit: Sepang

writes, reads and then deletes an object tree

Lap: delete

t [time in ms]	depth:8	depth:10	depth:12	depth:14
db4o/4.5.200	25	105	492	5376
JDBC/HXTT DBF	178	452	2188	8136
JDBC/MySQL	158	537	2003	8058
JDBC/Mckoi	361	1034	4285	17397
JDBC/Derby	3291	9985	39849	157852
JDBC/HSQLDB	54	84	324	5999

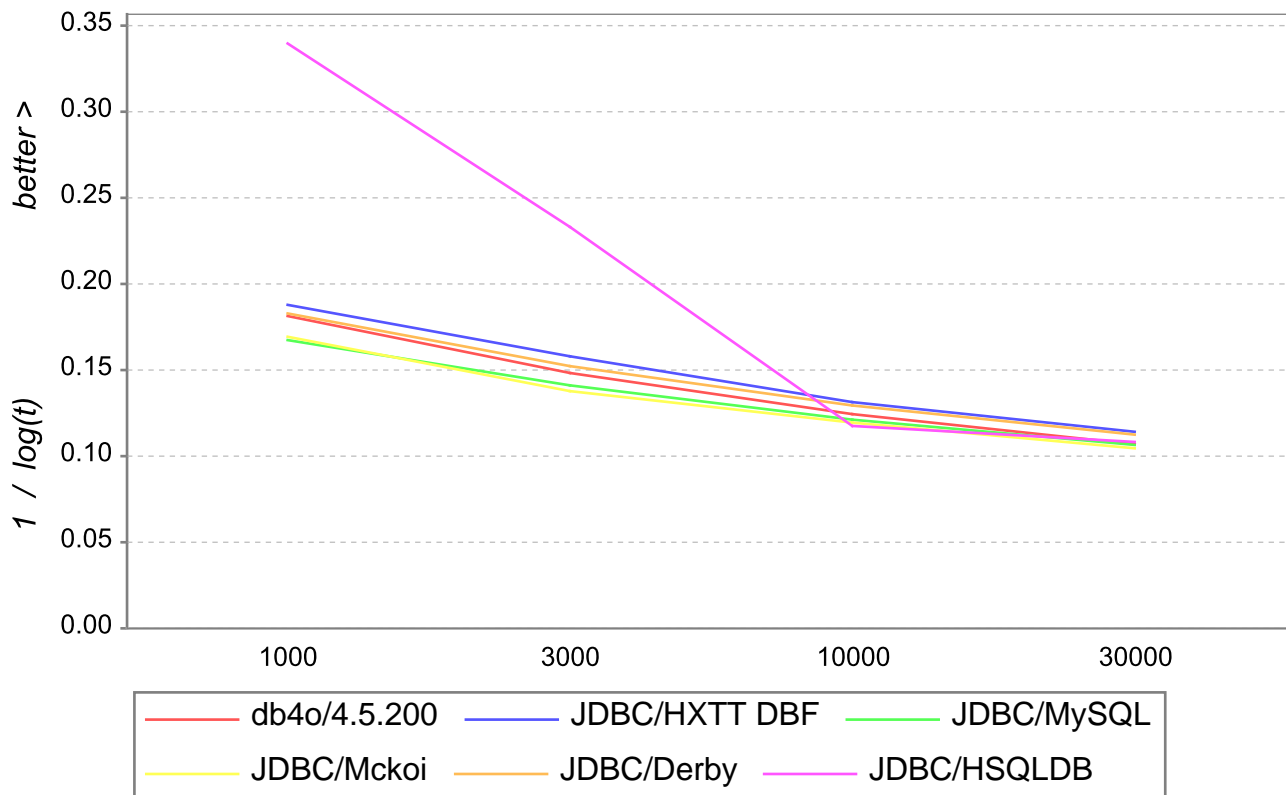


Circuit: Bahrain

write, query, update and delete simple flat objects individually

Lap: write

t [time in ms]	selects:900 objects:1000 updates:100	selects:900 objects:3000 updates:100	selects:900 objects:10000 updates:100	selects:900 objects:30000 updates:100
db4o/4.5.200	248	848	3094	11545
JDBC/HXTT DBF	205	561	2021	6368
JDBC/MySQL	393	1196	3831	11926
JDBC/Mckoi	367	1420	4313	14226
JDBC/Derby	237	711	2267	7246
JDBC/HSQLDB	19	73	4946	10274

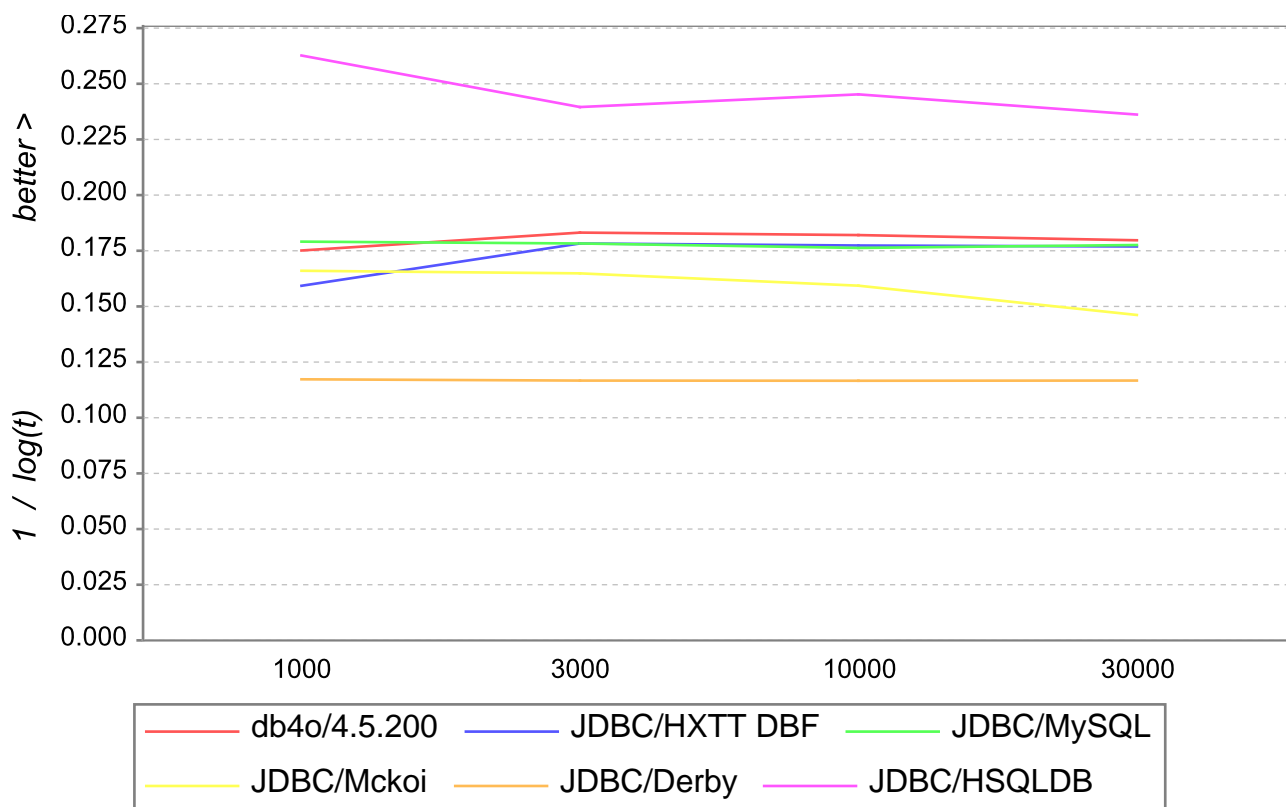


Circuit: Bahrain

write, query, update and delete simple flat objects individually

Lap: query_indexed_string

t [time in ms]	selects:900 objects:1000 updates:100	selects:900 objects:3000 updates:100	selects:900 objects:10000 updates:100	selects:900 objects:30000 updates:100
db4o/4.5.200	302	235	243	261
JDBC/HXTT DBF	533	273	281	285
JDBC/MySQL	266	273	291	279
JDBC/Mckoi	413	431	532	936
JDBC/Derby	5055	5269	5298	5266
JDBC/HSQLDB	45	65	59	69

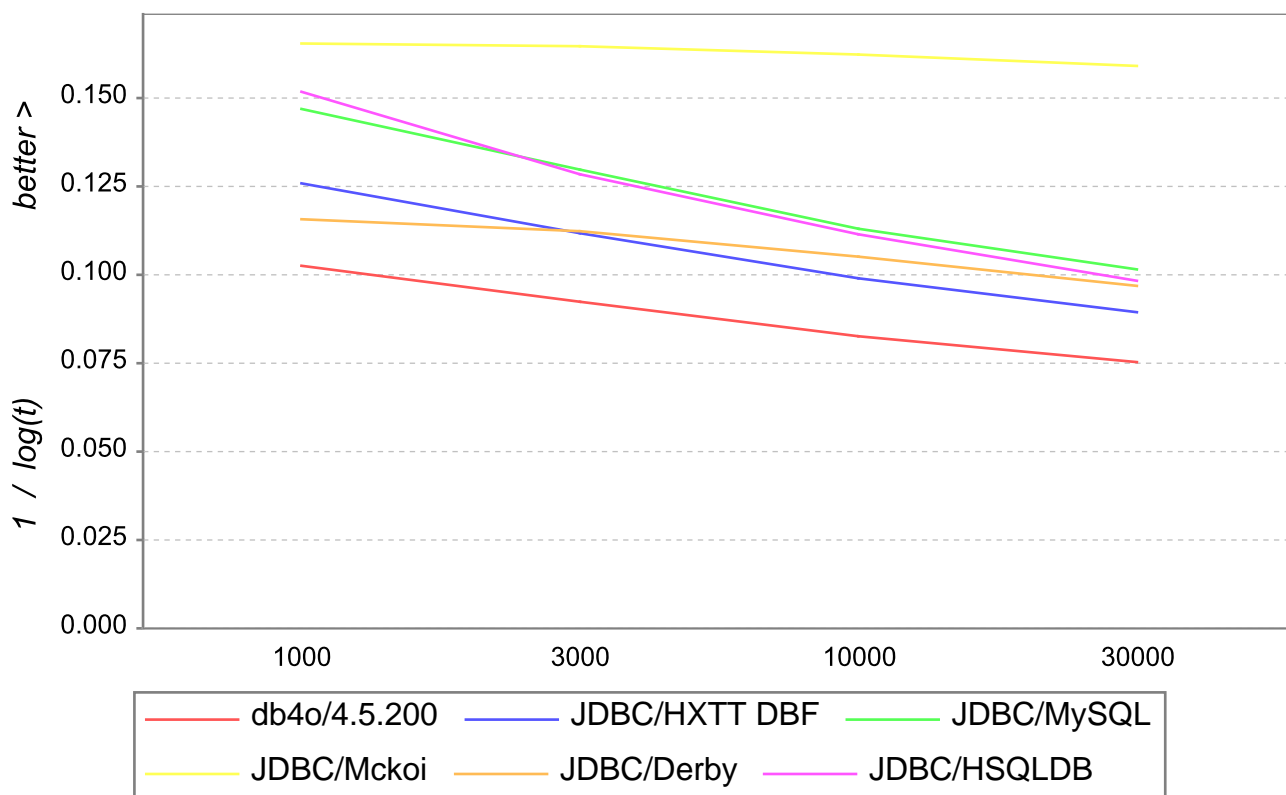


Circuit: Bahrain

write, query, update and delete simple flat objects individually

Lap: query_string

t [time in ms]	selects:900 objects:1000 updates:100	selects:900 objects:3000 updates:100	selects:900 objects:10000 updates:100	selects:900 objects:30000 updates:100
db4o/4.5.200	17160	50237	180432	584008
JDBC/HXTT DBF	2821	7685	24338	71837
JDBC/MySQL	904	2223	6957	18922
JDBC/Mckoi	422	434	474	537
JDBC/Derby	5662	7345	13509	30403
JDBC/HSQldb	727	2407	7880	26141

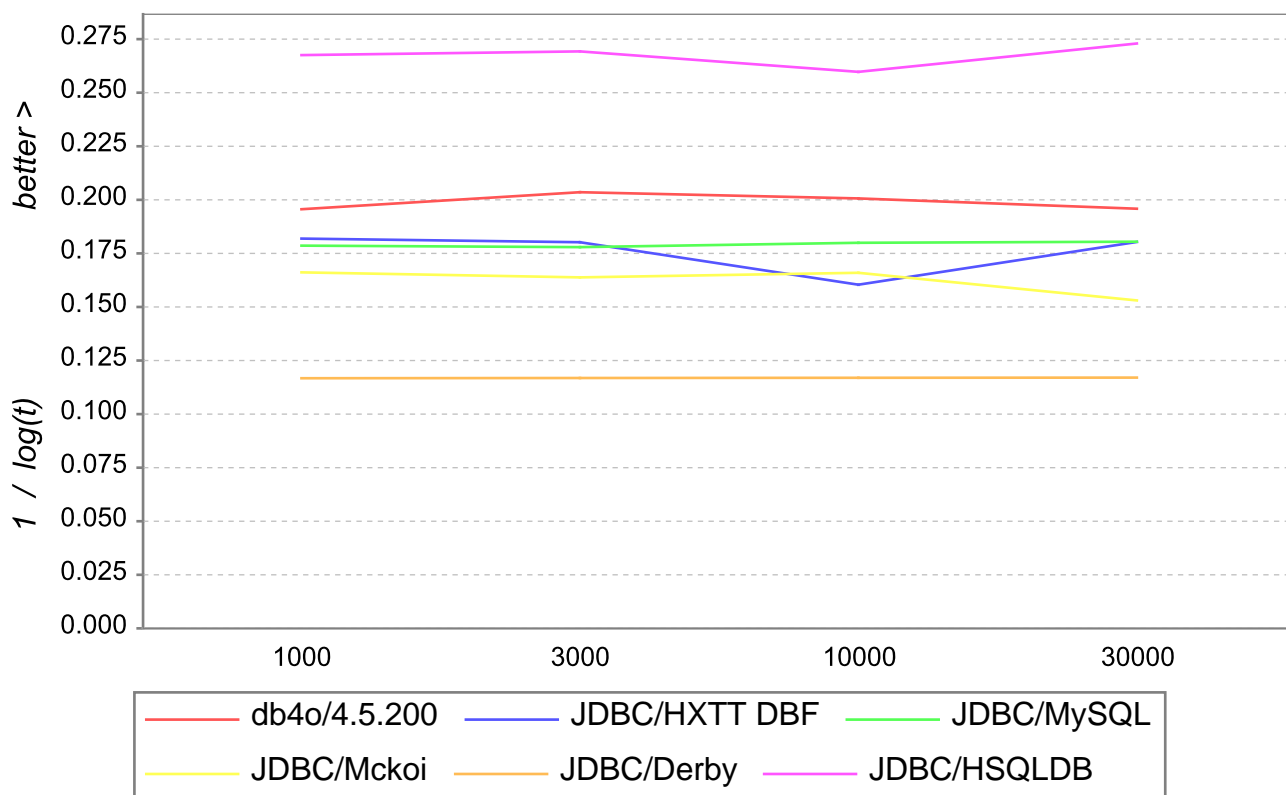


Circuit: Bahrain

write, query, update and delete simple flat objects individually

Lap: query_indexed_int

t [time in ms]	selects:900 objects:1000 updates:100	selects:900 objects:3000 updates:100	selects:900 objects:10000 updates:100	selects:900 objects:30000 updates:100
db4o/4.5.200	166	136	146	165
JDBC/HXTT DBF	244	257	510	256
JDBC/MySQL	270	276	259	255
JDBC/Mckoi	411	448	414	688
JDBC/Derby	5249	5208	5170	5135
JDBC/HSQLDB	42	41	47	39

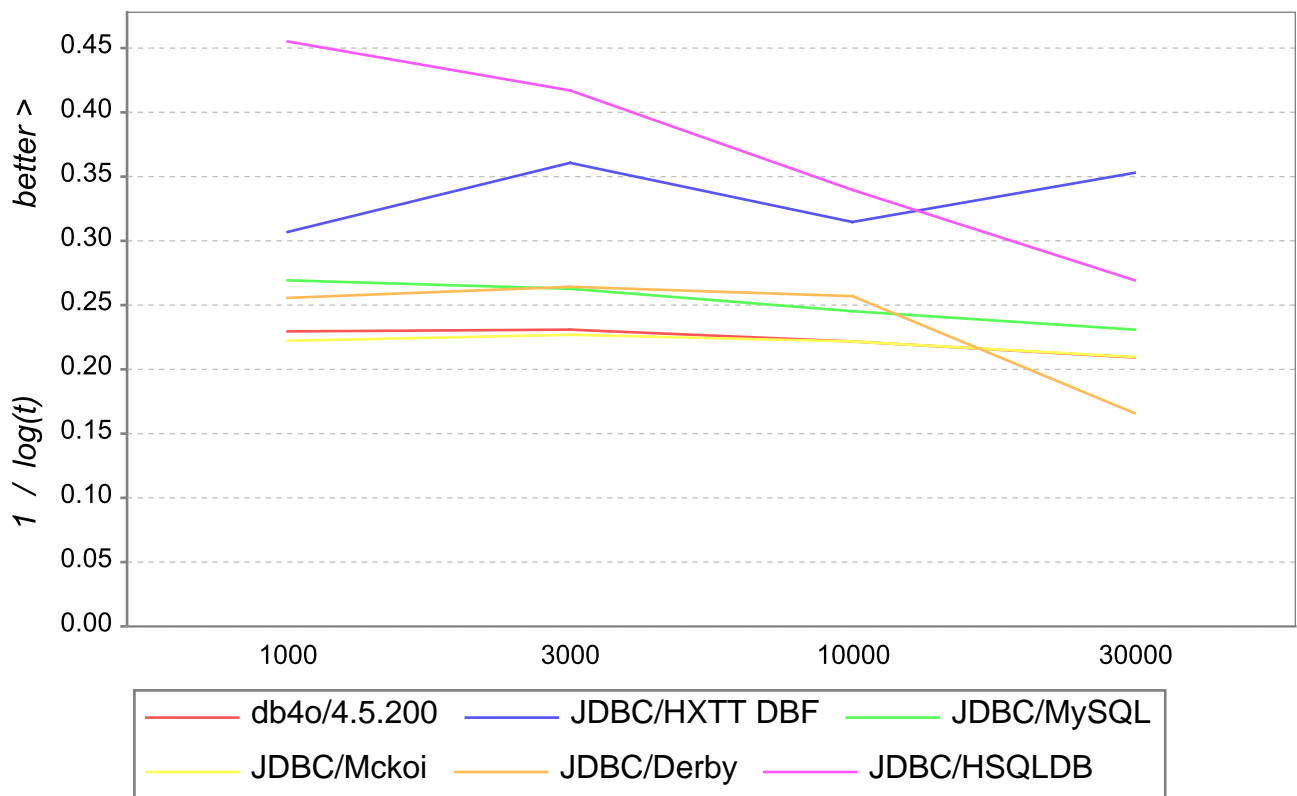


Circuit: Bahrain

write, query, update and delete simple flat objects individually

Lap: update

t [time in ms]	selects:900 objects:1000 updates:100	selects:900 objects:3000 updates:100	selects:900 objects:10000 updates:100	selects:900 objects:30000 updates:100
db4o/4.5.200	78	76	91	119
JDBC/HXTT DBF	26	16	24	17
JDBC/MySQL	41	45	59	76
JDBC/Mckoi	90	82	91	118
JDBC/Derby	50	44	49	415
JDBC/HSQLDB	9	11	19	41

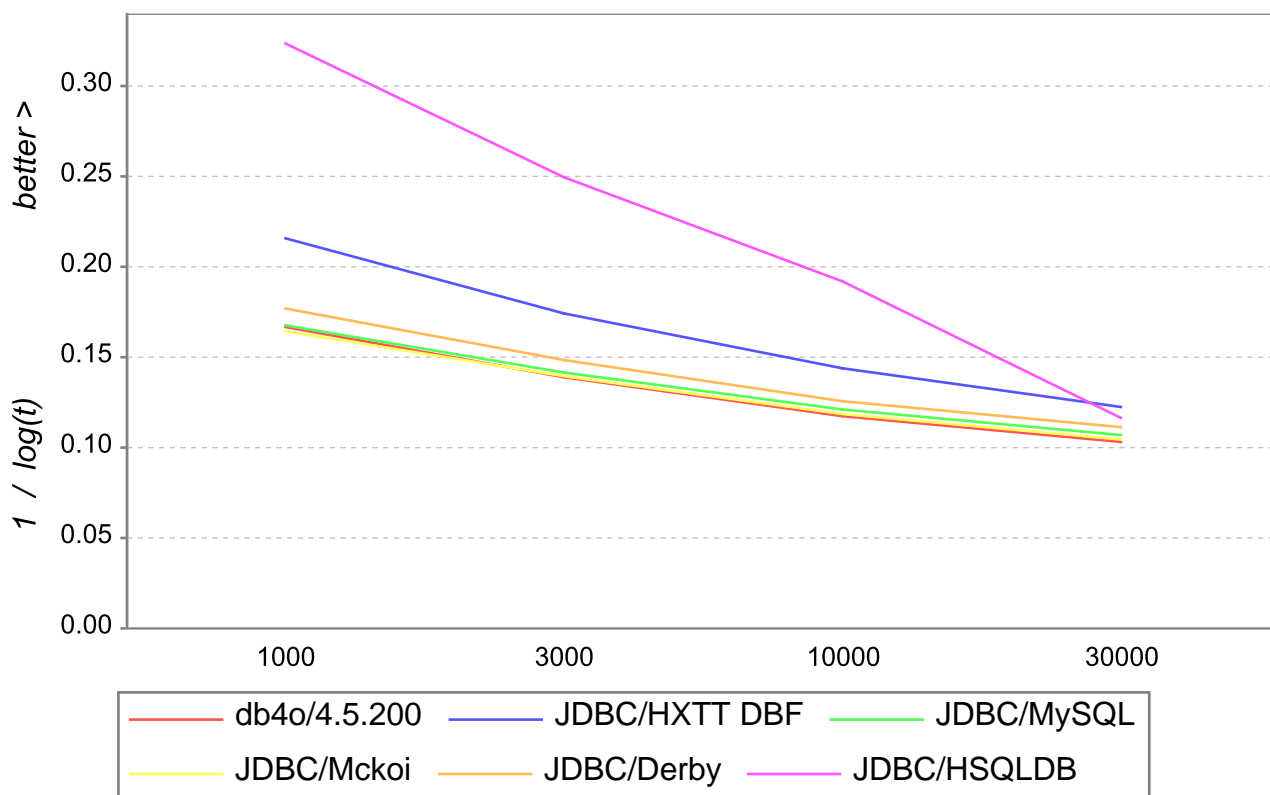


Circuit: Bahrain

write, query, update and delete simple flat objects individually

Lap: delete

t [time in ms]	selects:900 objects:1000 updates:100	selects:900 objects:3000 updates:100	selects:900 objects:10000 updates:100	selects:900 objects:30000 updates:100
db4o/4.5.200	403	1337	5008	16242
JDBC/HXTT DBF	103	311	1044	3513
JDBC/MySQL	390	1171	3862	11514
JDBC/Mckoi	439	1298	4597	14329
JDBC/Derby	285	843	2858	7969
JDBC/HSQLDB	22	55	183	5366

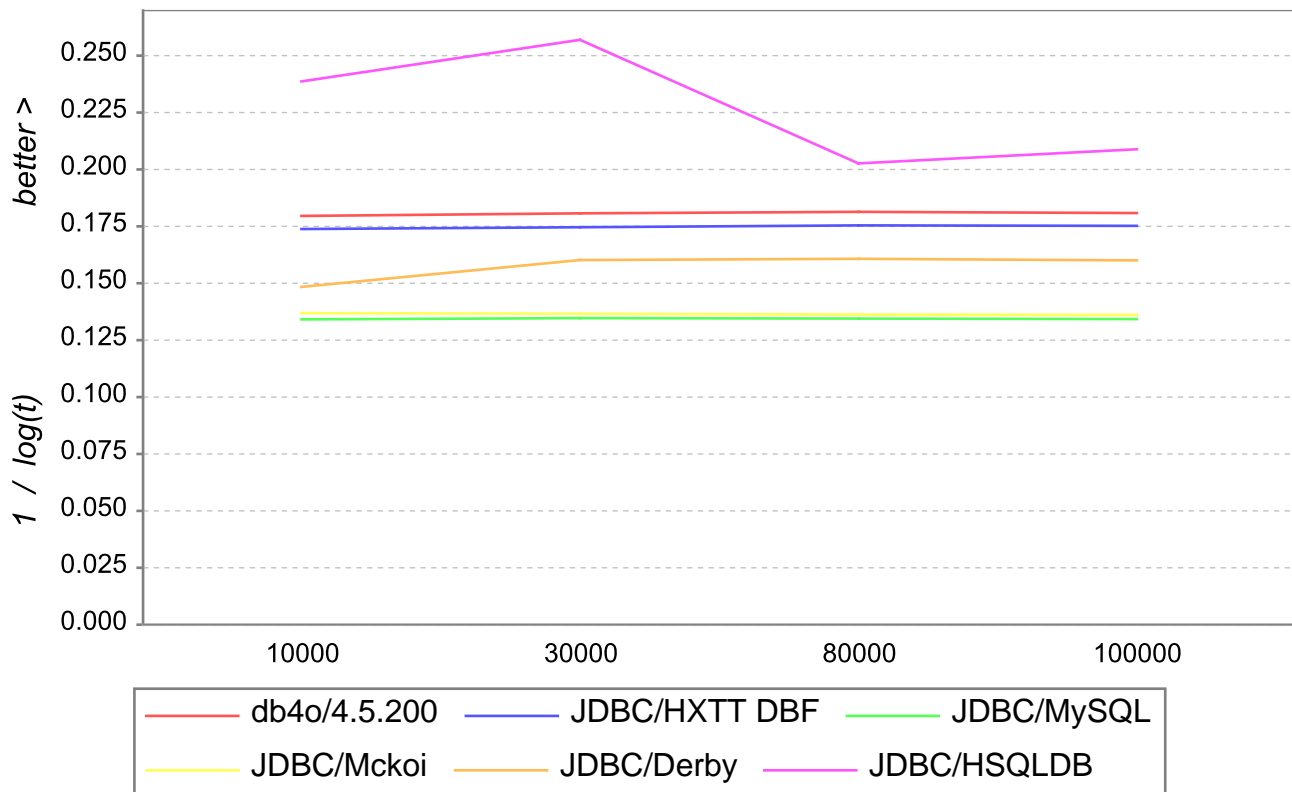


Circuit: Imola

retrieves objects by native id

Lap: retrieve

t [time in ms]	selects:5000 objects:10000	selects:5000 objects:30000	selects:5000 objects:80000	selects:5000 objects:100000
db4o/4.5.200	262	253	248	252
JDBC/HXTT DBF	315	307	299	301
JDBC/MySQL	1729	1678	1695	1716
JDBC/Mckoi	1489	1510	1541	1552
JDBC/Derby	844	514	503	517
JDBC/HSQLDB	66	49	139	120

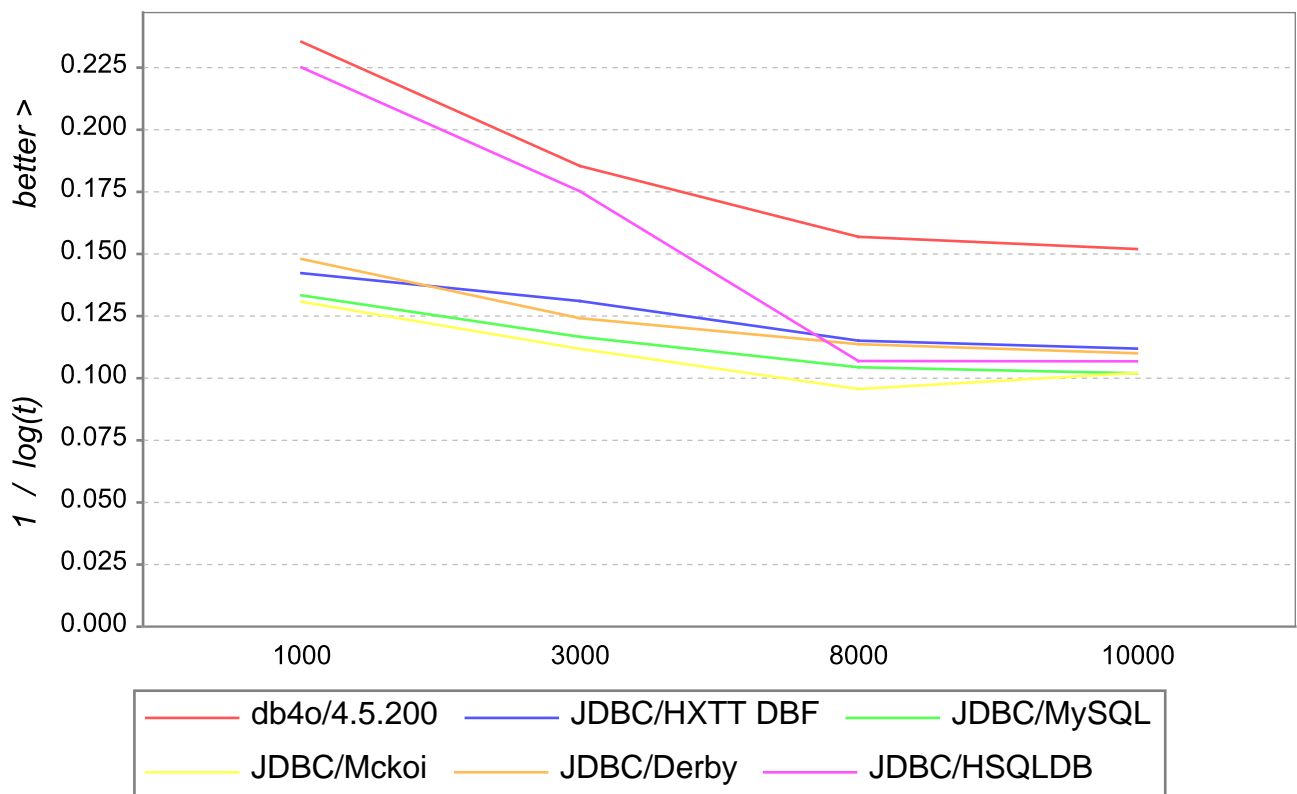


Circuit: Barcelona

writes, reads, queries and deletes objects with a 5 level inheritance structure

Lap: write

t [time in ms]	selects:100 objects:1000	selects:100 objects:3000	selects:100 objects:8000	selects:100 objects:10000
db4o/4.5.200	70	220	586	720
JDBC/HXTT DBF	1128	2059	5927	7594
JDBC/MySQL	1806	5280	14427	18152
JDBC/Mckoi	2094	7661	34647	17852
JDBC/Derby	861	3151	6597	8844
JDBC/HSQLDB	85	301	11524	11653

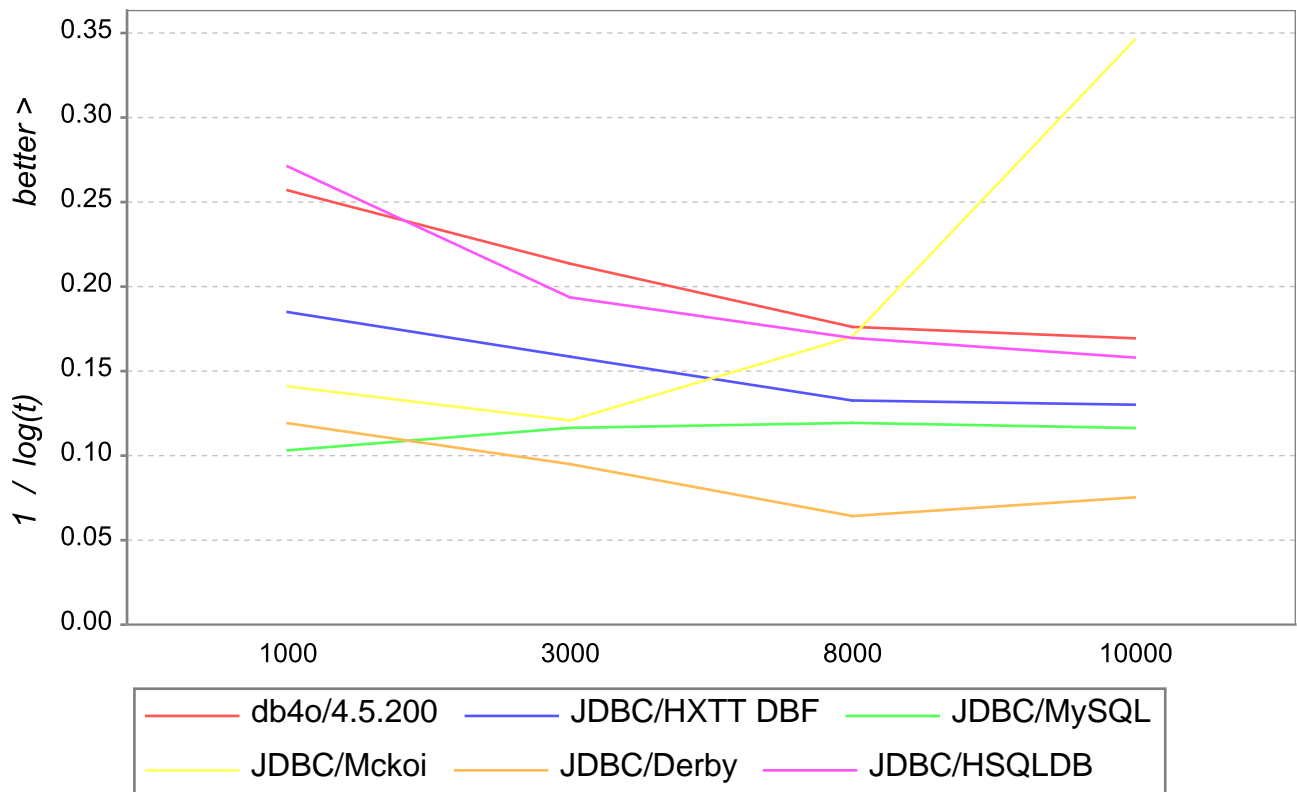


Circuit: Barcelona

writes, reads, queries and deletes objects with a 5 level inheritance structure

Lap: read

t [time in ms]	selects:100 objects:1000	selects:100 objects:3000	selects:100 objects:8000	selects:100 objects:10000
db4o/4.5.200	49	108	292	366
JDBC/HXTT DBF	223	548	1881	2175
JDBC/MySQL	16191	5375	4339	5407
JDBC/Mckoi	1205	3935	354	18
JDBC/Derby	4399	37147	5723327	582814
JDBC/HSQLDB	40	175	363	560

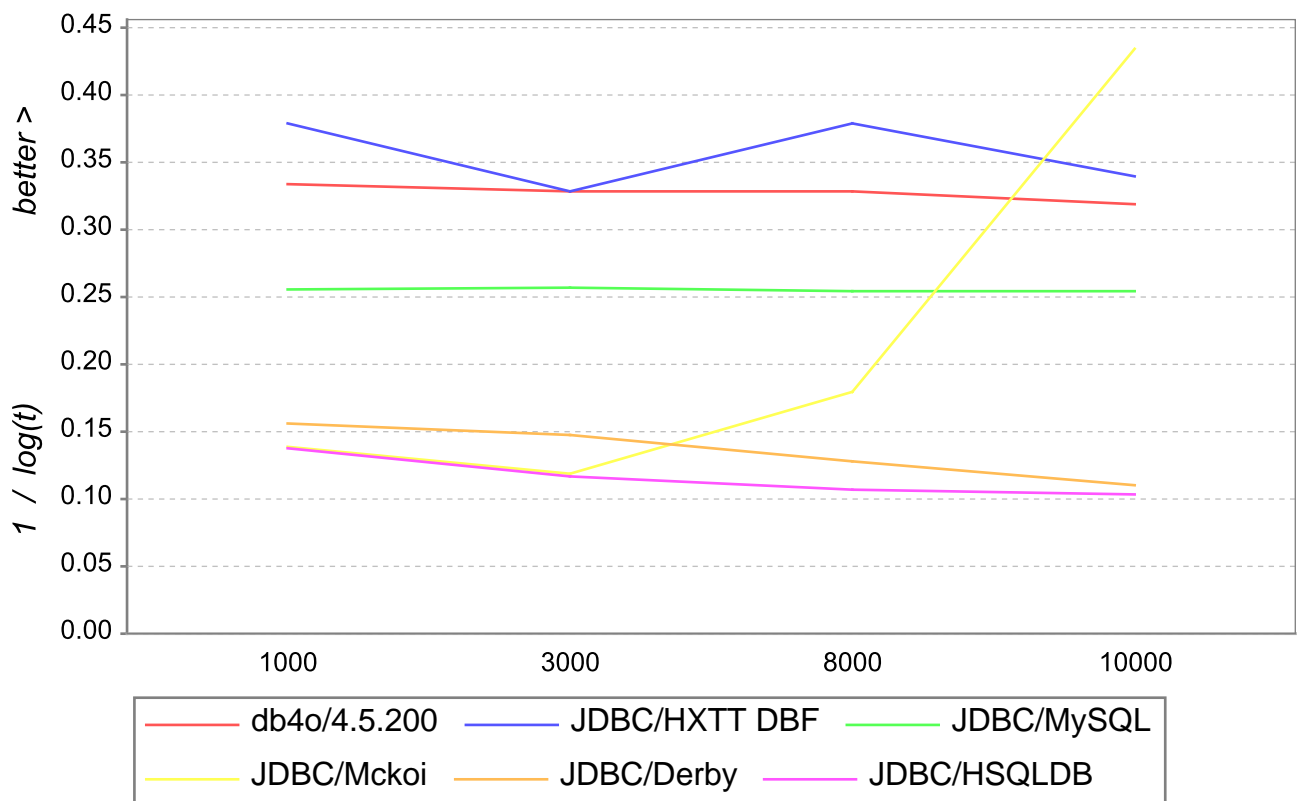


Circuit: Barcelona

writes, reads, queries and deletes objects with a 5 level inheritance structure

Lap: query

t [time in ms]	selects:100 objects:1000	selects:100 objects:3000	selects:100 objects:8000	selects:100 objects:10000
db4o/4.5.200	20	21	21	23
JDBC/HXTT DBF	14	21	14	19
JDBC/MySQL	50	49	51	51
JDBC/Mckoi	1349	4532	262	10
JDBC/Derby	606	878	2475	8687
JDBC/HSQldb	1427	5233	11503	15827



Circuit: Barcelona

writes, reads, queries and deletes objects with a 5 level inheritance structure

Lap: delete

t [time in ms]	selects:100 objects:1000	selects:100 objects:3000	selects:100 objects:8000	selects:100 objects:10000
db4o/4.5.200	162	496	1432	1846
JDBC/HXTT DBF	376	1099	2989	3730
JDBC/MySQL	1702	5037	13822	17752
JDBC/Mckoi	2032	6378	12502	12766
JDBC/Derby	1180	3529	8725	11097
JDBC/HSQLDB	5315	5439	5861	11753

