

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 CSV (Text)

lightweight 100% Java engine for raw data, flat text , CSV file, TSV file, fixed-length, and variable-length binary file

<http://www.hxtt.com/text.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

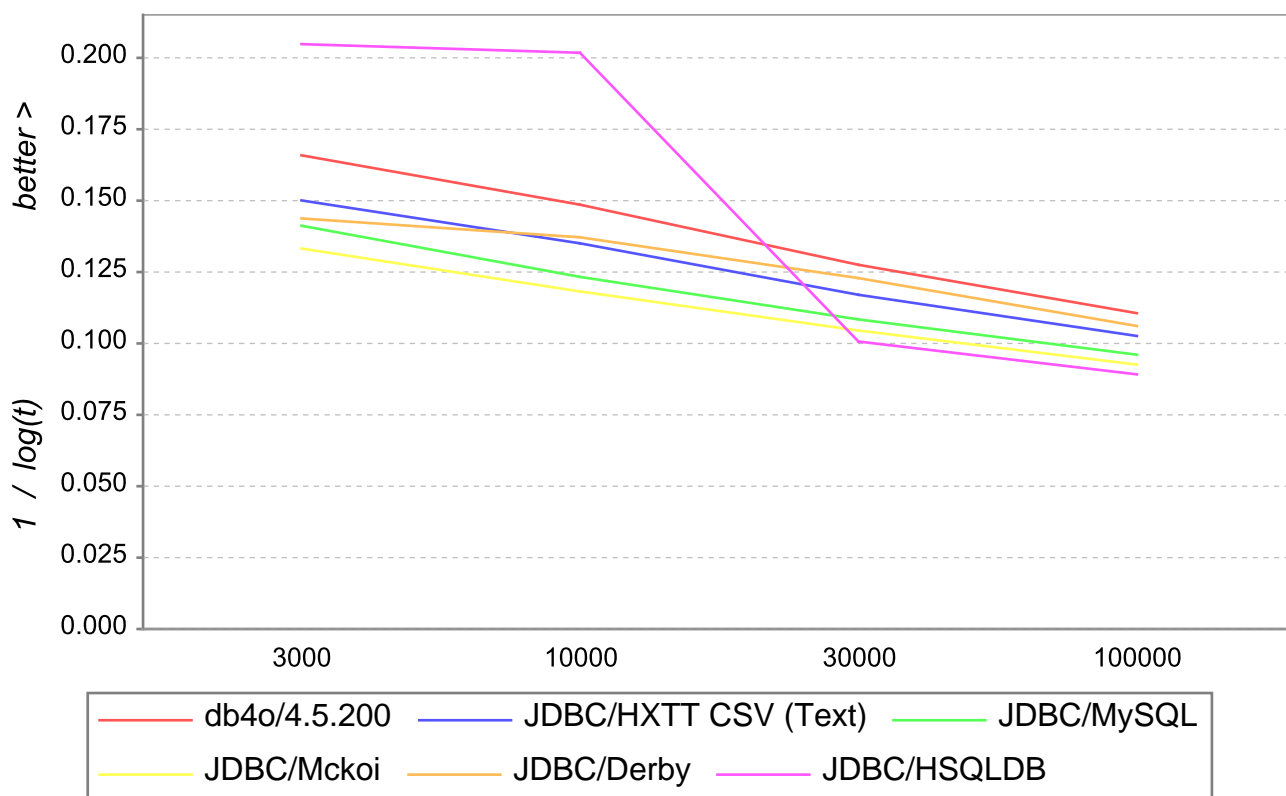
<http://hsqldb.sourceforge.net/>

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	415	837	2542	8451
JDBC/HXTT CSV	783	1643	5135	17067
JDBC/MySQL	1189	3328	10130	33220
JDBC/Mckoi	1818	4721	14293	49135
JDBC/Derby	1049	1466	3421	12378
JDBC/HSQLDB	132	142	20604	74177

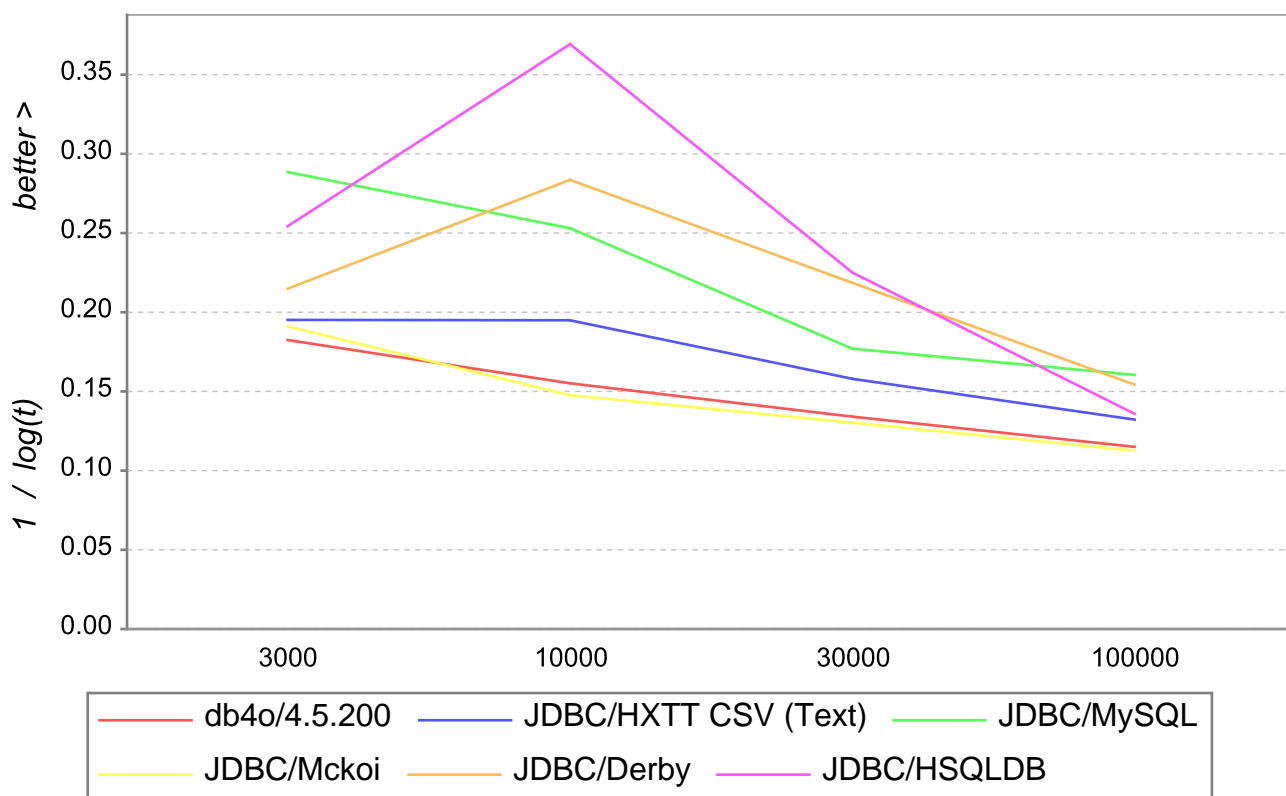


Circuit: Melbourne

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	240	630	1732	5966
JDBC/HXTT CSV	168	169	561	1926
JDBC/MySQL	32	52	284	509
JDBC/Mckoi	187	874	2149	7180
JDBC/Derby	105	34	97	652
JDBC/HSQLDB	51	15	85	1572

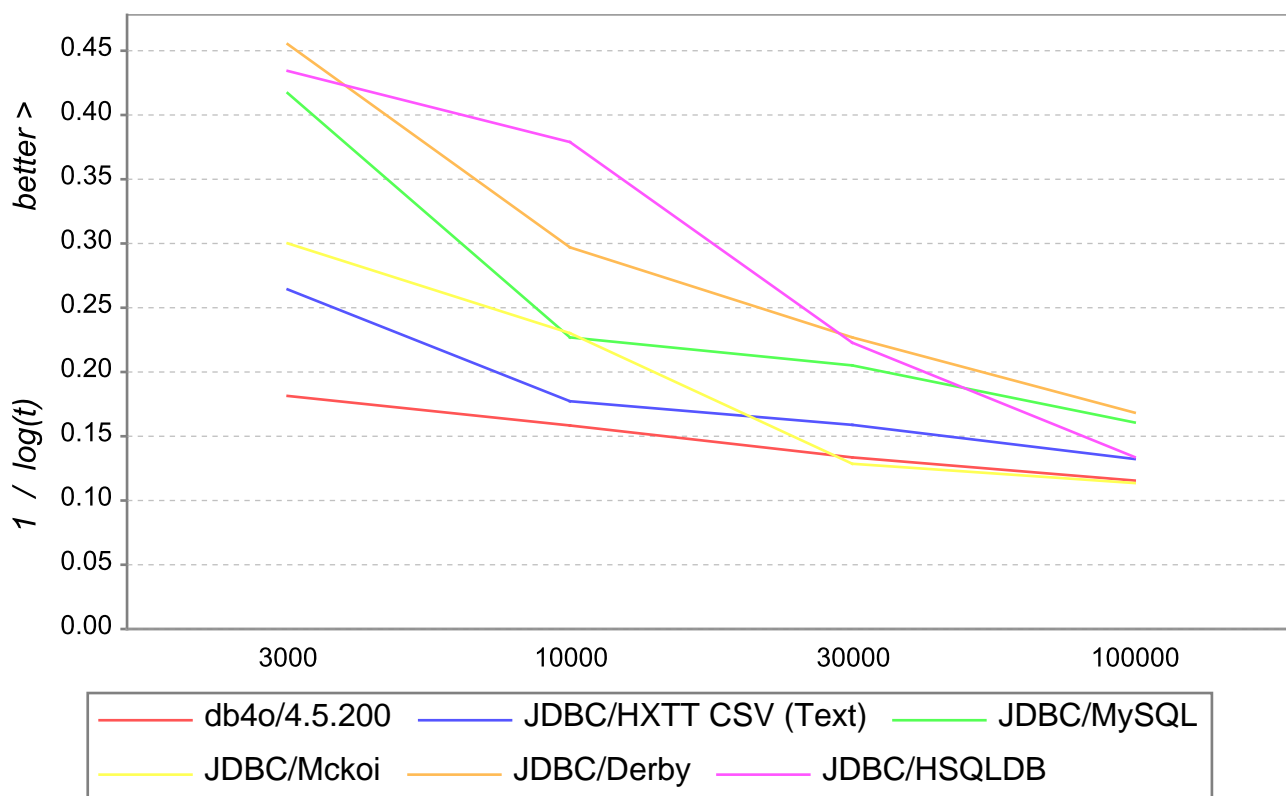


Circuit: Melbourne

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	248	552	1787	5752
JDBC/HXTT CSV	44	282	542	1919
JDBC/MySQL	11	82	131	504
JDBC/Mckoi	28	77	2384	6670
JDBC/Derby	9	29	82	380
JDBC/HSQldb	10	14	89	1761

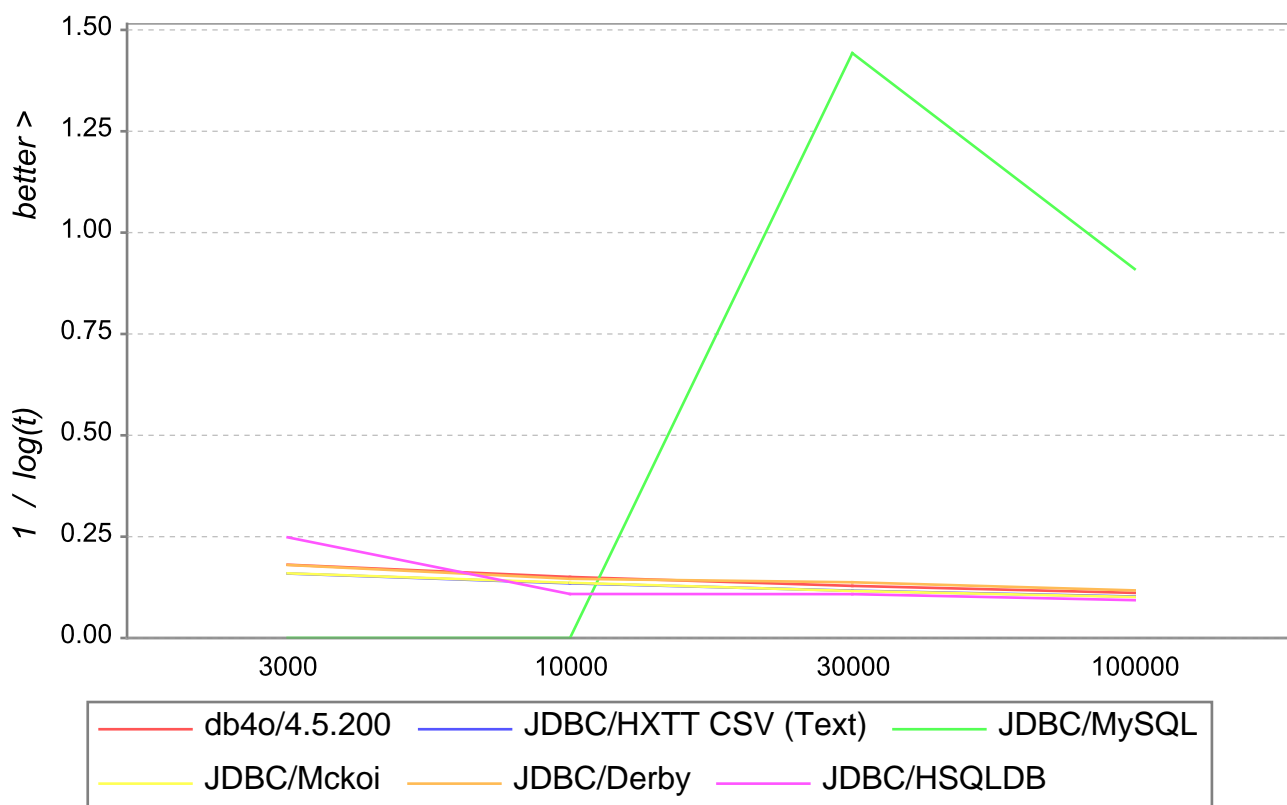


Circuit: Melbourne

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	765	2386	7941
JDBC/HXTT CSV	536	1655	5216	17669
JDBC/MySQL	1	1	2	3
JDBC/Mckoi	527	1540	5515	19592
JDBC/Derby	257	939	1439	4986
JDBC/HSQLDB	56	9963	10284	45222

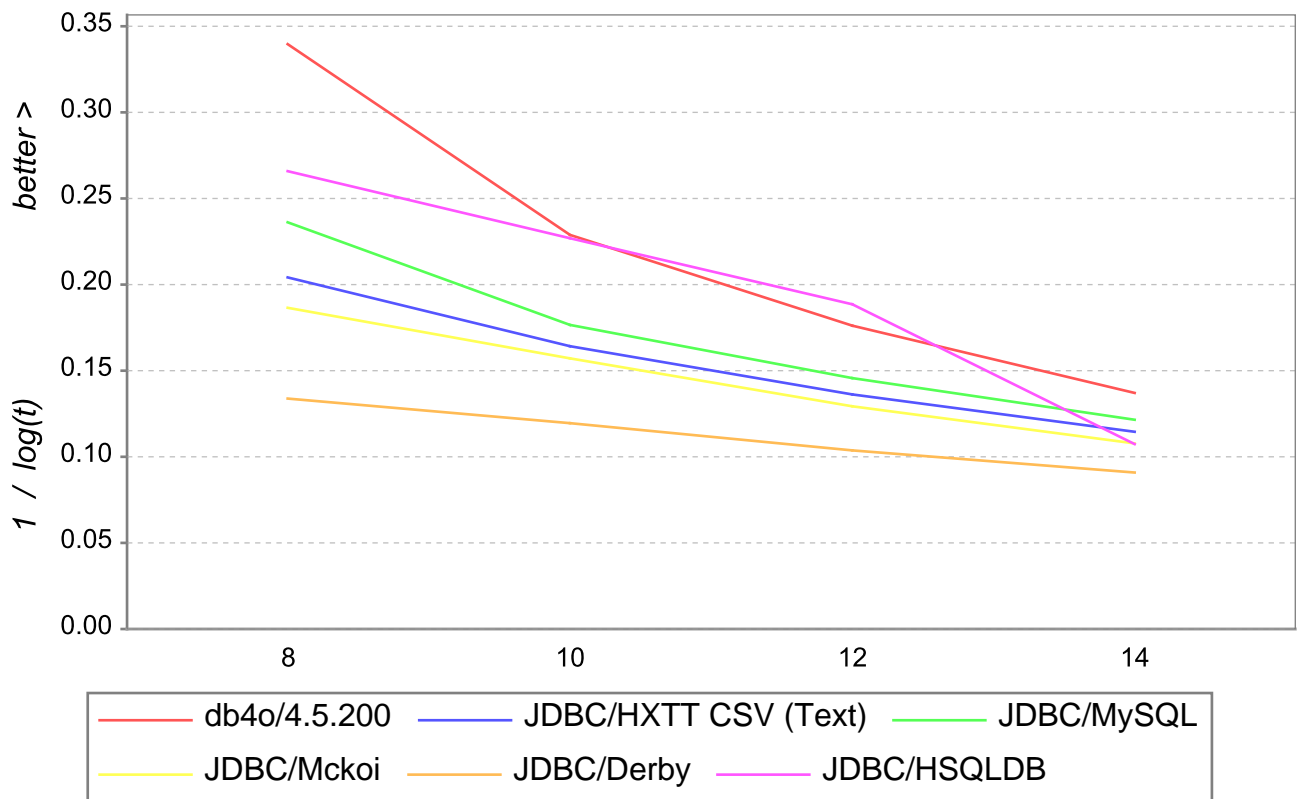


Circuit: Sepang

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	19	79	292	1472
JDBC/HXTT CSV	134	441	1542	6191
JDBC/MySQL	69	288	957	3749
JDBC/Mckoi	213	580	2280	10706
JDBC/Derby	1760	4297	15385	60229
JDBC/HSQLDB	43	82	201	11082

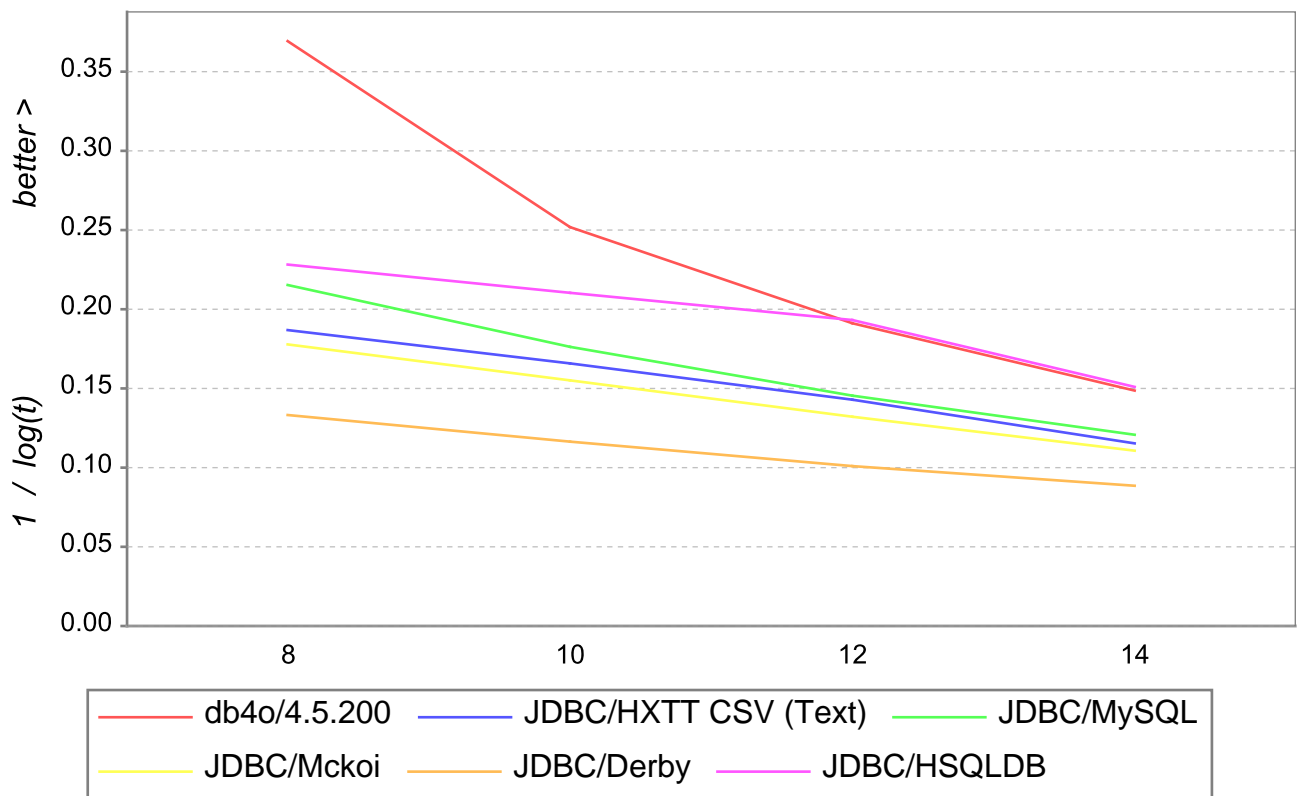


Circuit: Sepang

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	187	835
JDBC/HXTT CSV	211	416	1094	5834
JDBC/MySQL	104	291	968	3949
JDBC/Mckoi	277	631	1935	8380
JDBC/Derby	1819	5375	20025	80225
JDBC/HSQldb	80	116	177	753

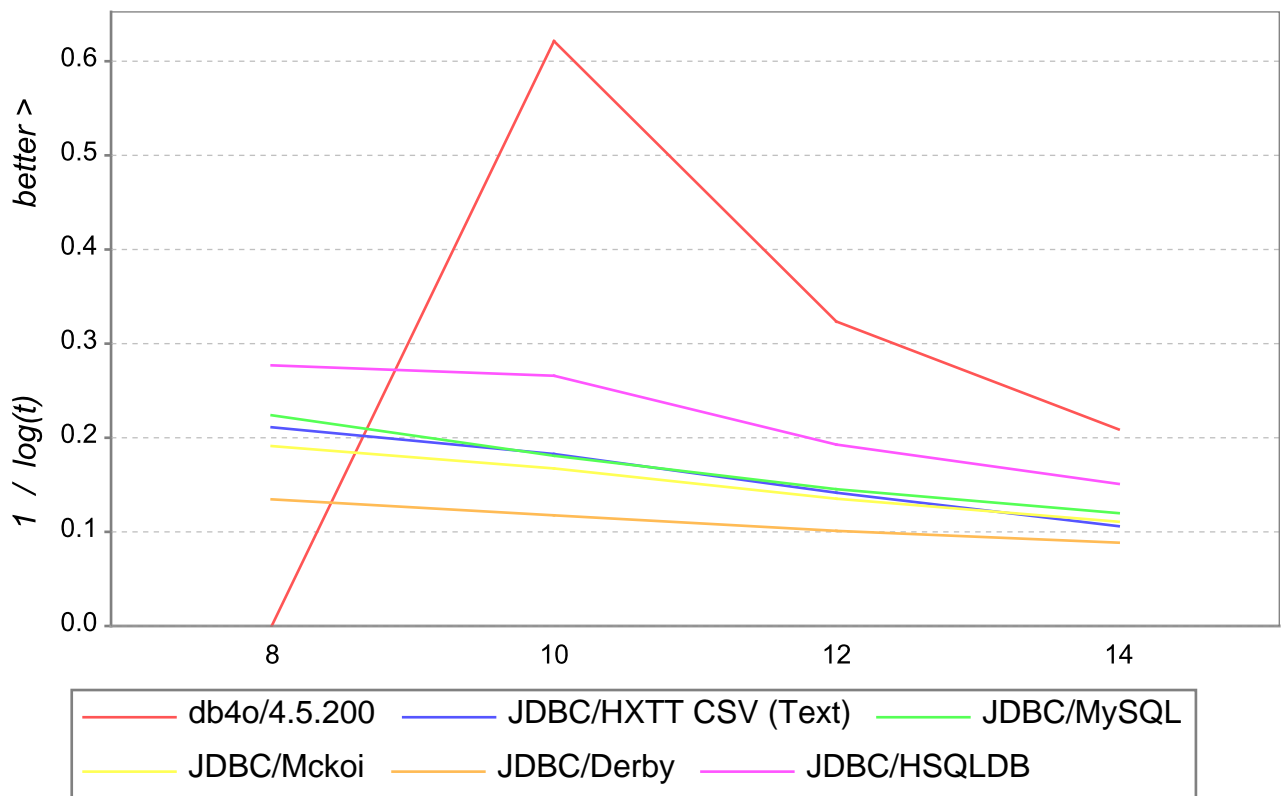


Circuit: Sepang

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	120
JDBC/HXTT CSV	114	238	1166	12450
JDBC/MySQL	87	252	972	4188
JDBC/Mckoi	187	393	1627	8325
JDBC/Derby	1687	4941	19781	80495
JDBC/HSQldb	37	43	179	753

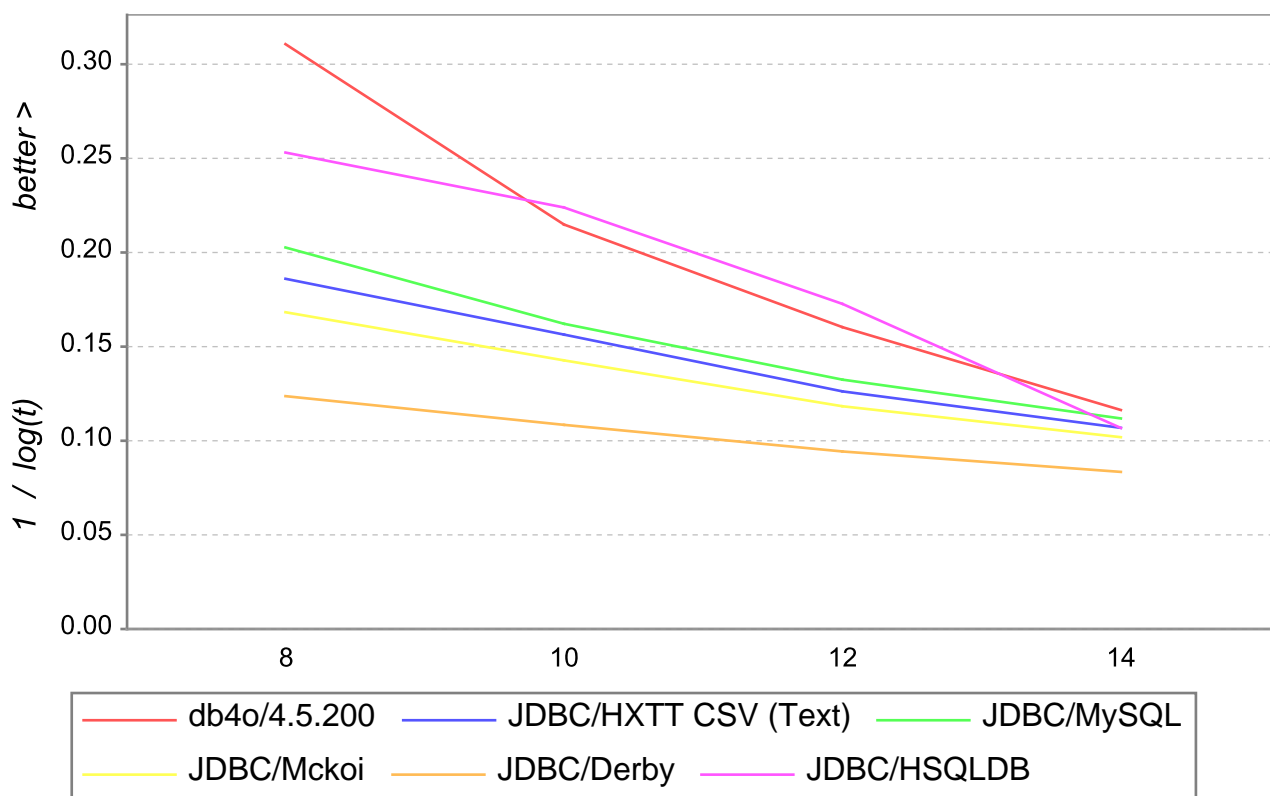


Circuit: Sepang

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	511	5410
JDBC/HXTT CSV	216	598	2756	11590
JDBC/MySQL	139	477	1898	7630
JDBC/Mckoi	381	1105	4680	18289
JDBC/Derby	3244	10108	40283	159966
JDBC/HSQLDB	52	87	327	11660

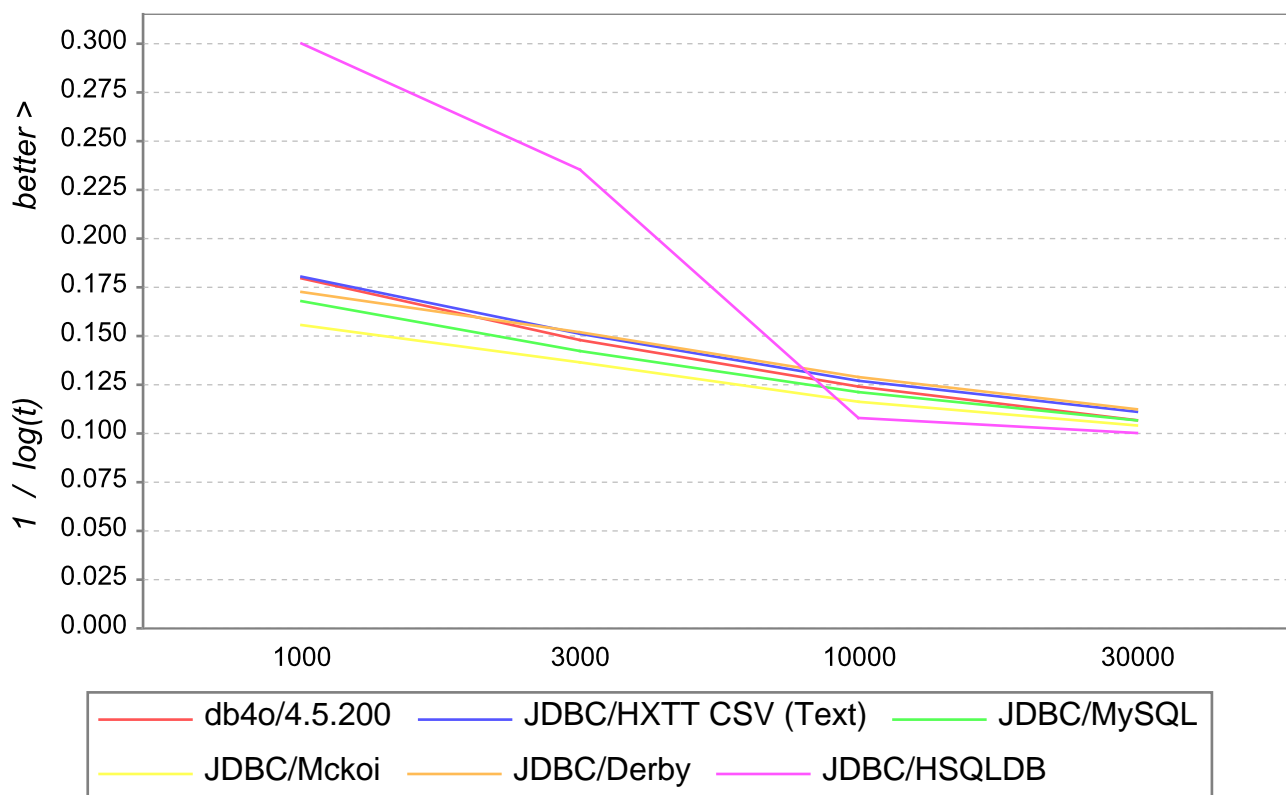


Circuit: Bahrain

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	262	862	3165	11644
JDBC/HXTT CSV	255	747	2621	8092
JDBC/MySQL	386	1127	3820	11734
JDBC/Mckoi	617	1519	5426	14843
JDBC/Derby	328	721	2332	7289
JDBC/HSQLDB	28	70	10530	21475

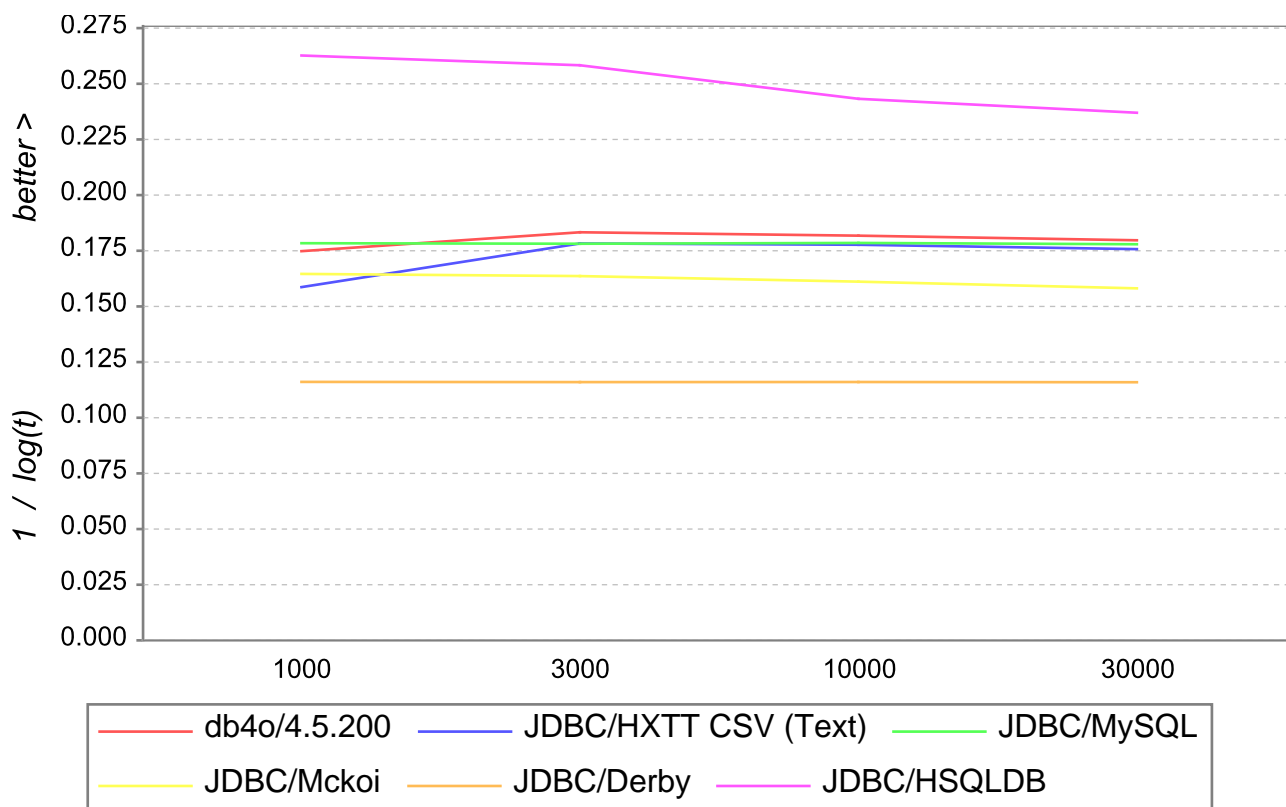


Circuit: Bahrain

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	305	234	245	261
JDBC/HXTT CSV	546	273	278	296
JDBC/MySQL	272	274	271	276
JDBC/Mckoi	435	451	496	558
JDBC/Derby	5505	5542	5525	5566
JDBC/HSQLDB	45	48	61	68

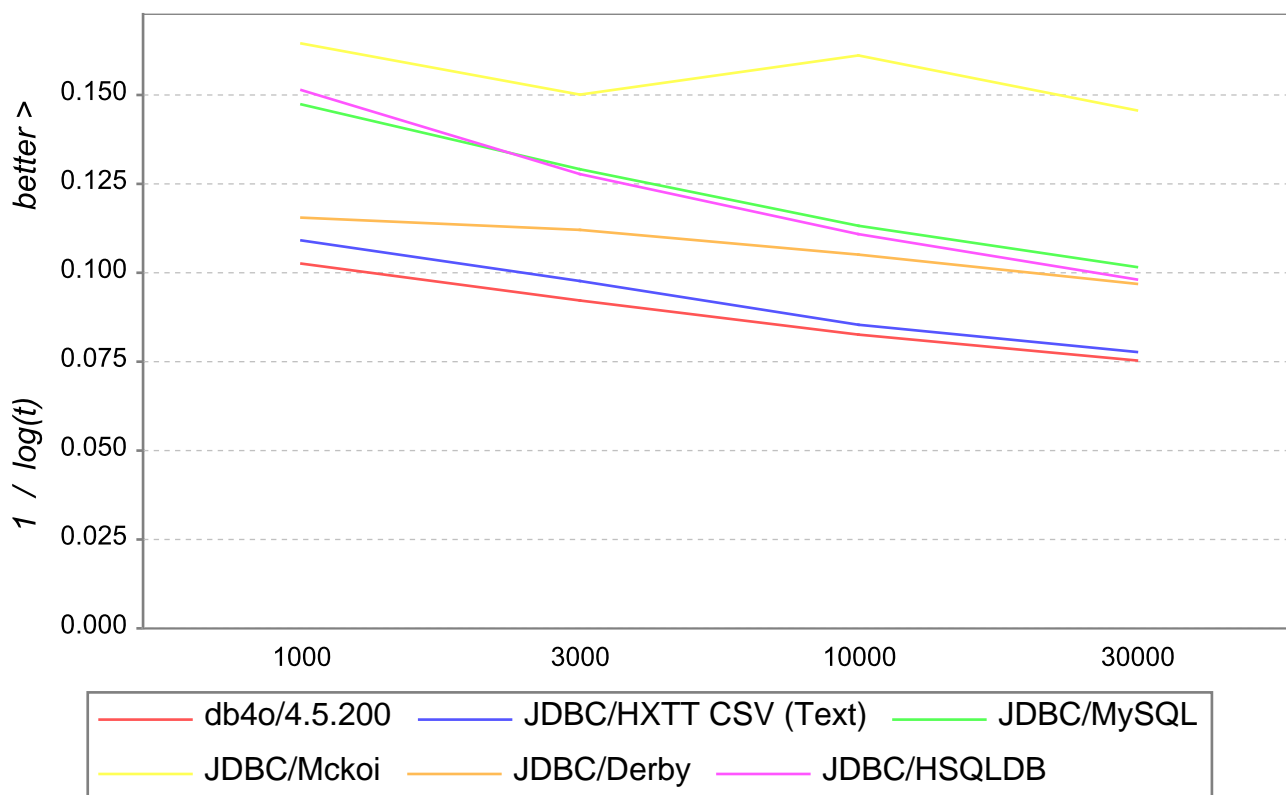


Circuit: Bahrain

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	17131	51332	180635	582115
JDBC/HXTT CSV	9570	27912	121965	387022
JDBC/MySQL	886	2309	6851	18797
JDBC/Mckoi	437	782	496	958
JDBC/Derby	5752	7507	13545	30387
JDBC/HSQLDB	740	2509	8263	26702

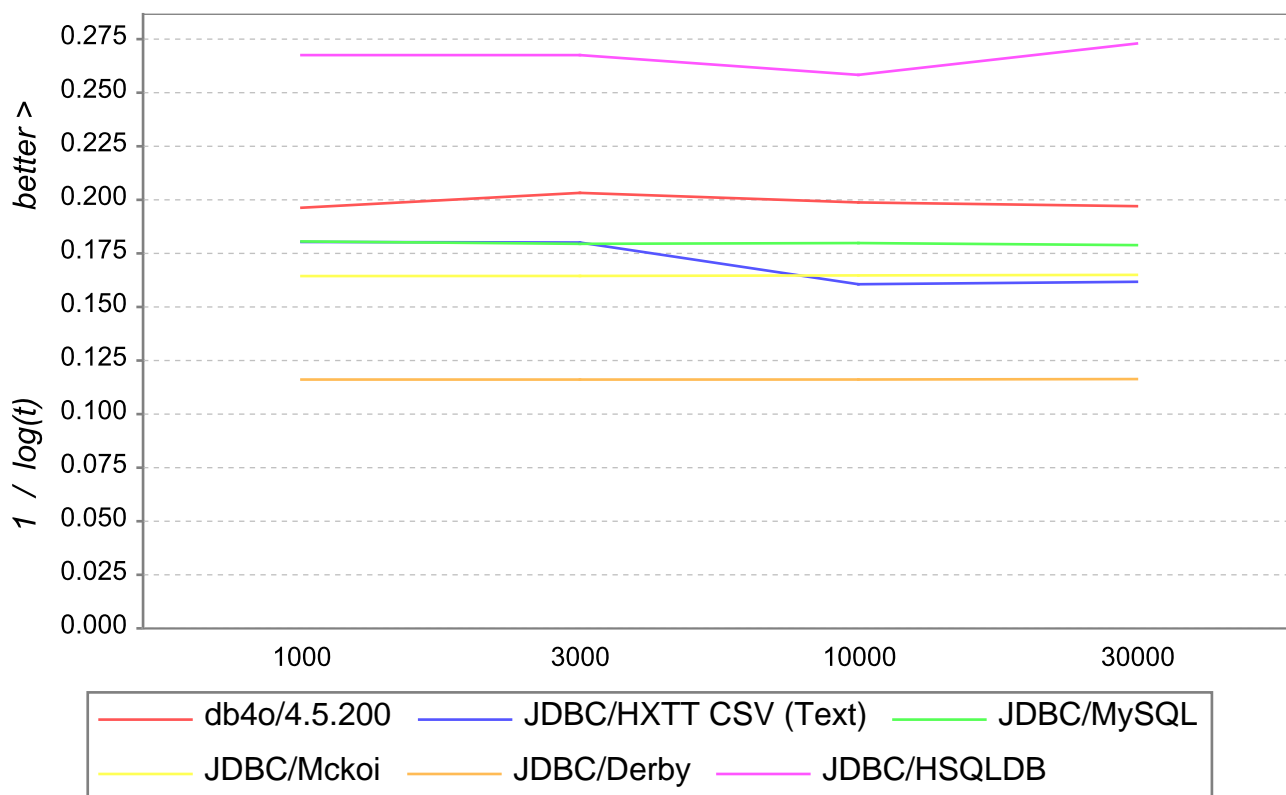


Circuit: Bahrain

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	163	137	153	160
JDBC/HXTT CSV	256	258	506	484
JDBC/MySQL	254	263	260	268
JDBC/Mckoi	438	437	433	429
JDBC/Derby	5494	5498	5486	5400
JDBC/HSQLDB	42	42	48	39

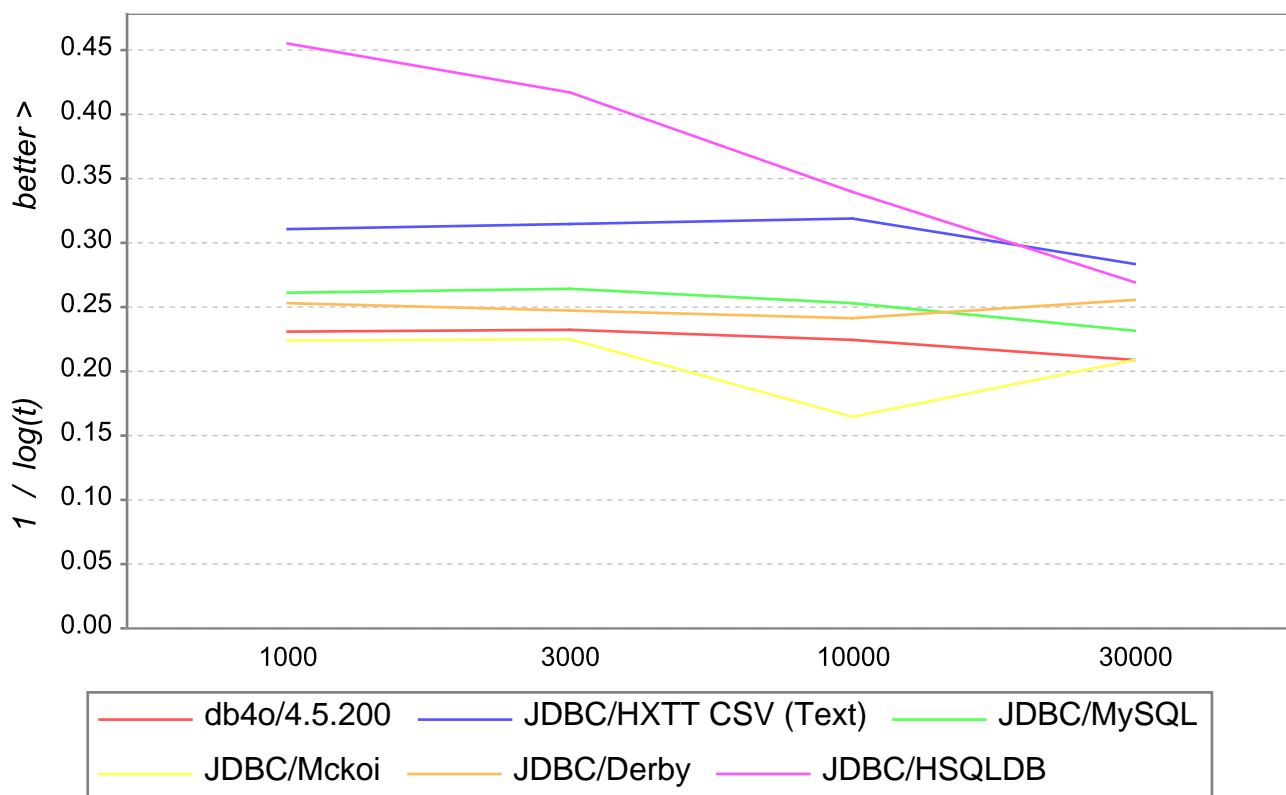


Circuit: Bahrain

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	76	74	86	120
JDBC/HXTT CSV	25	24	23	34
JDBC/MySQL	46	44	52	75
JDBC/Mckoi	87	85	435	120
JDBC/Derby	52	57	63	50
JDBC/HSQLDB	9	11	19	41

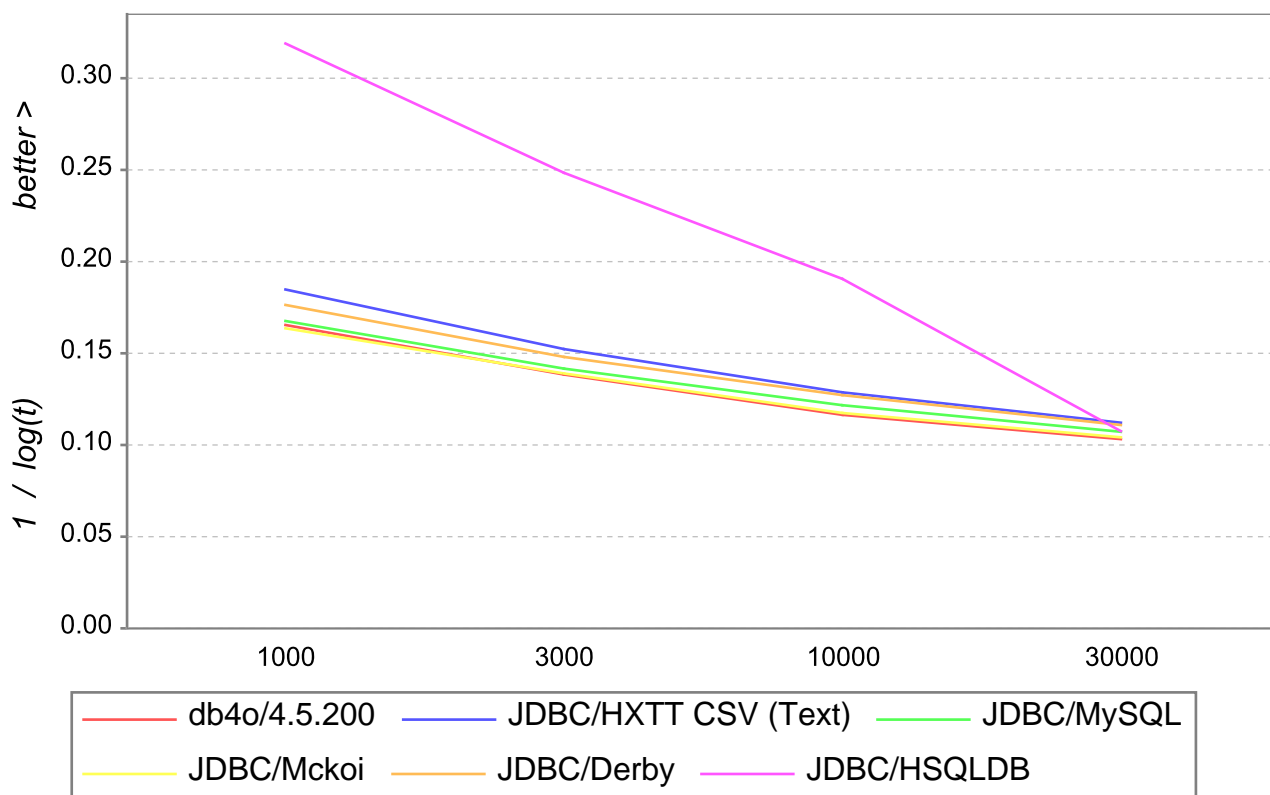


Circuit: Bahrain

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	422	1372	5365	16154
JDBC/HXTT CSV	224	710	2368	7455
JDBC/MySQL	390	1164	3706	11252
JDBC/Mckoi	451	1332	4986	14749
JDBC/Derby	290	859	2597	8243
JDBC/HSQLDB	23	56	190	10912

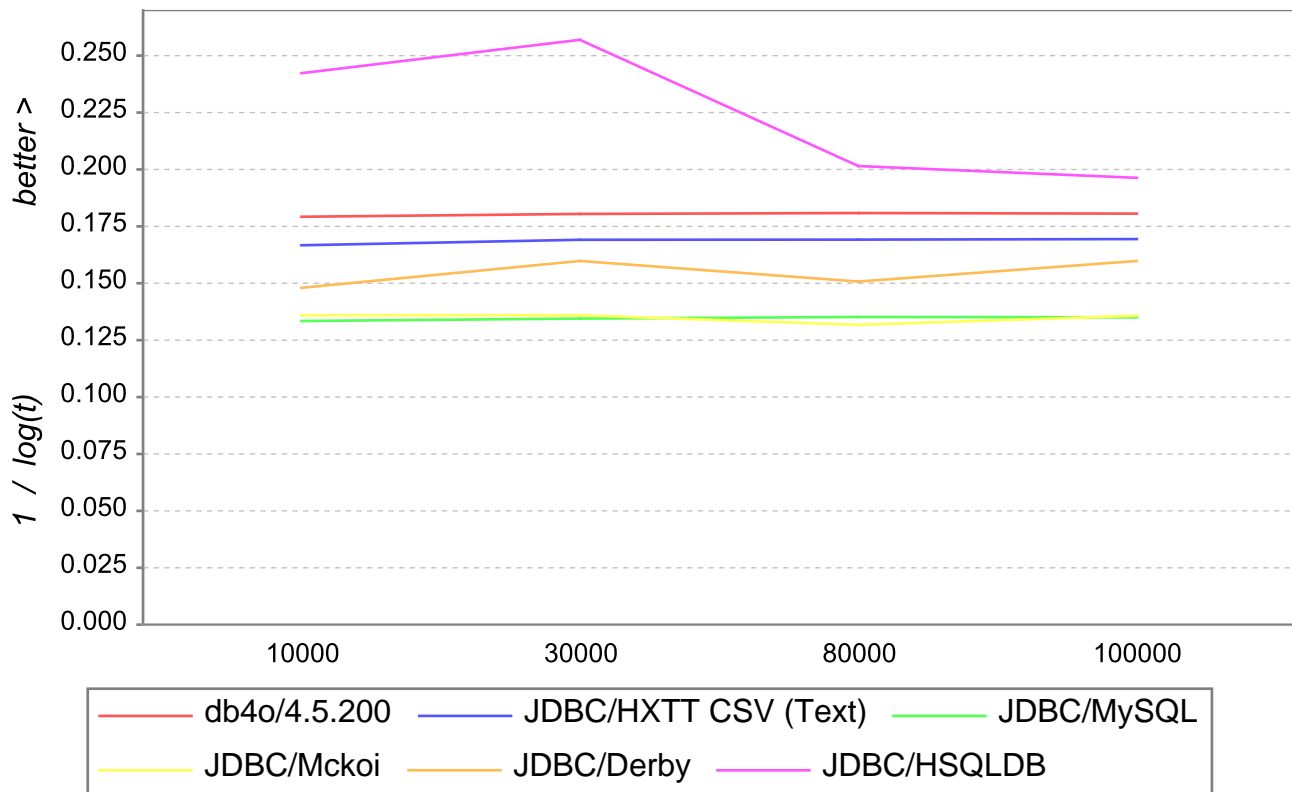


Circuit: Imola

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	265	255	252	254
JDBC/HXTT CSV	403	370	369	366
JDBC/MySQL	1799	1695	1632	1647
JDBC/Mckoi	1564	1566	1982	1584
JDBC/Derby	860	522	760	522
JDBC/HSQldb	62	49	143	163

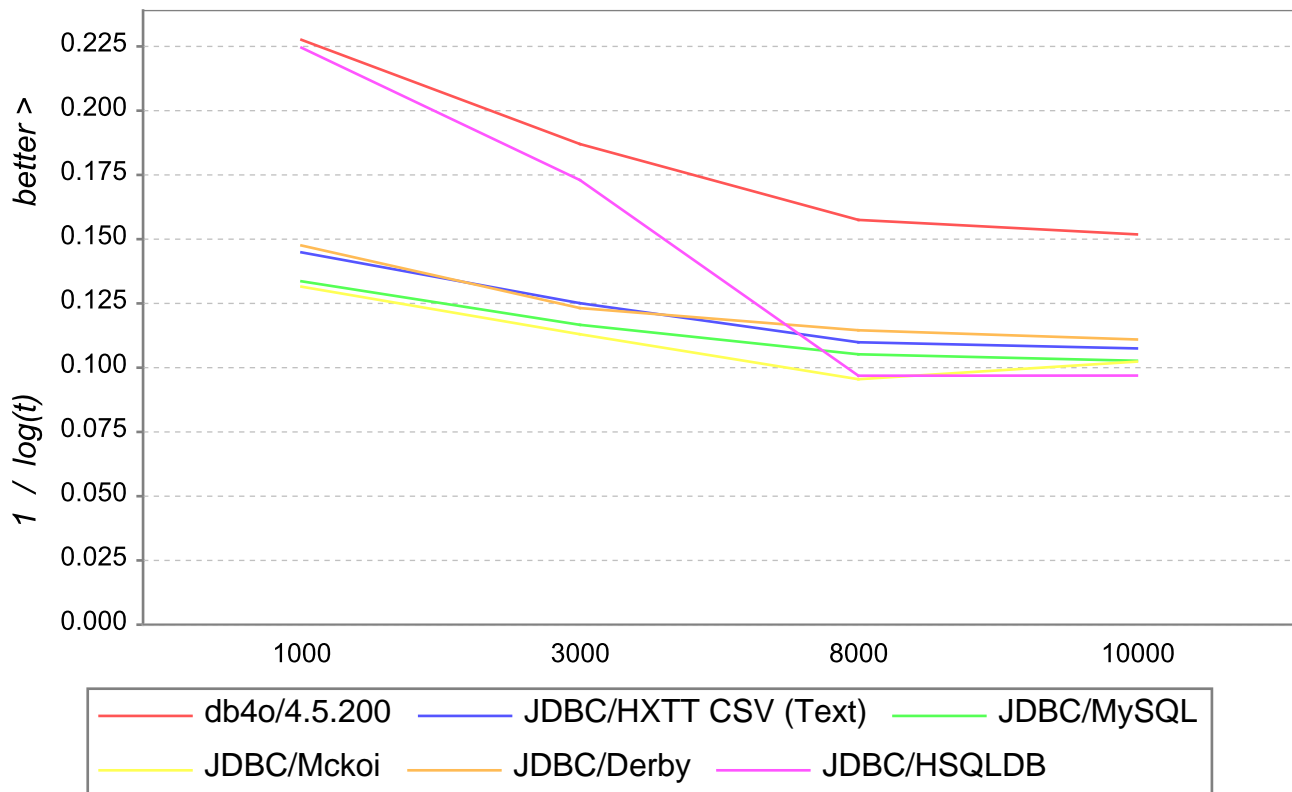


Circuit: Barcelona

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	81	210	572	724
JDBC/HXTT CSV	995	2962	8958	10972
JDBC/MySQL	1780	5280	13424	16951
JDBC/Mckoi	2005	6961	35241	17489
JDBC/Derby	878	3351	6180	8194
JDBC/HSQldb	86	324	30420	30225

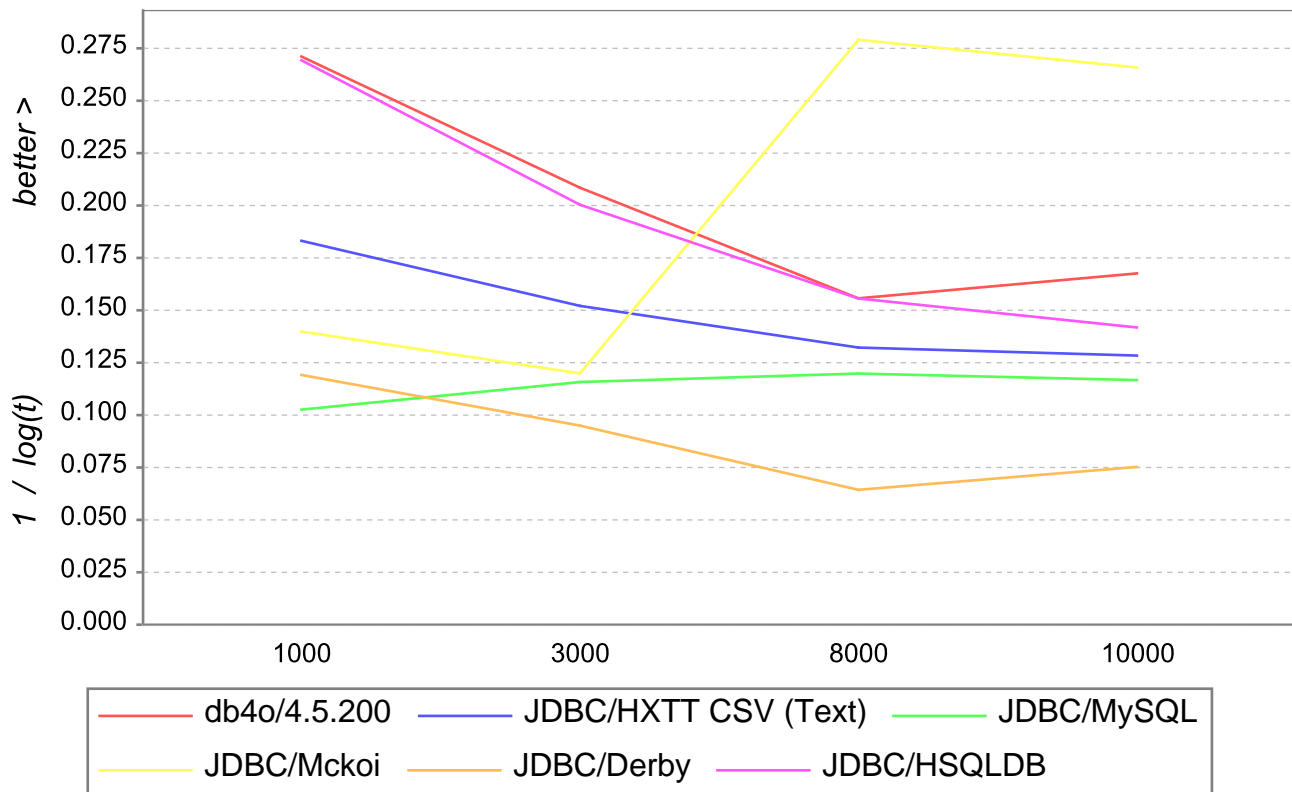


Circuit: Barcelona

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	40	121	615	390
JDBC/HXTT CSV	235	716	1925	2411
JDBC/MySQL	17057	5643	4209	5260
JDBC/Mckoi	1273	4183	36	43
JDBC/Derby	4408	37278	5614551	588718
JDBC/HSQldb	41	147	617	1154

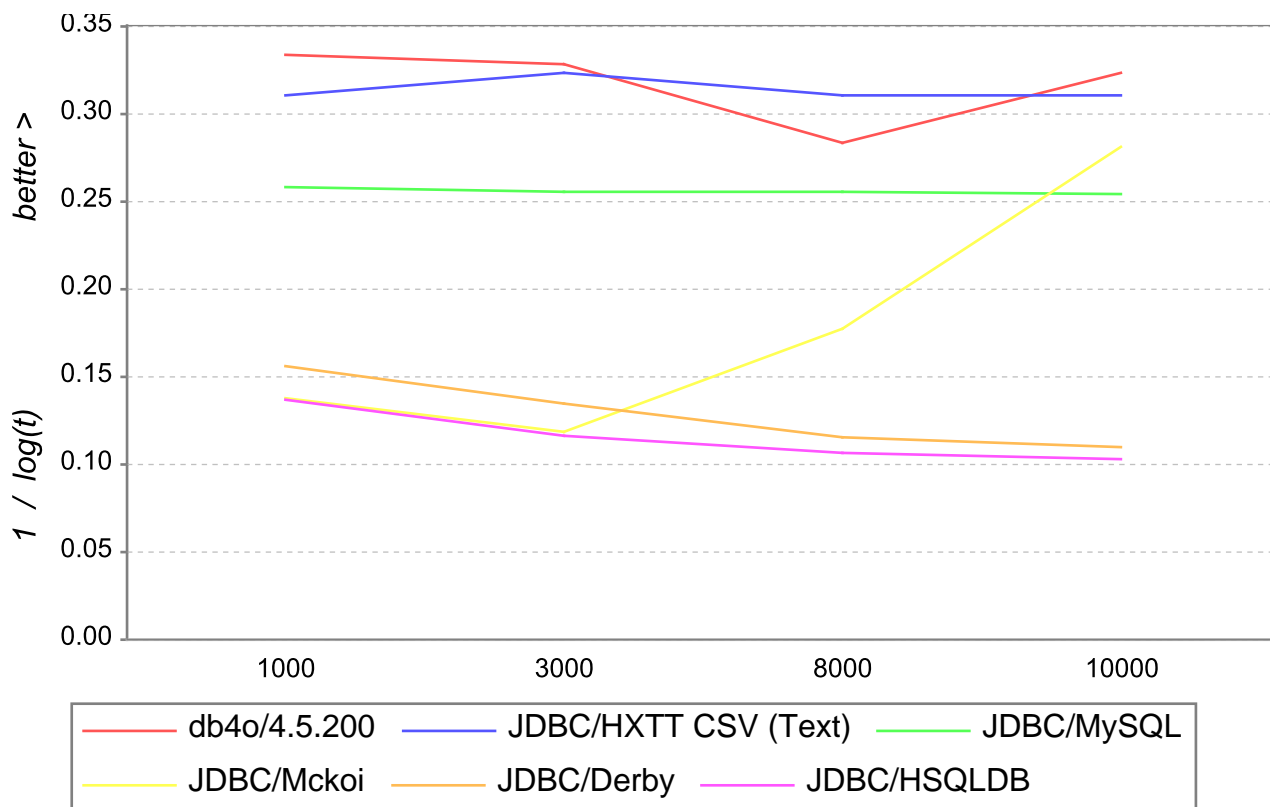


Circuit: Barcelona

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	34	22
JDBC/HXTT CSV	25	22	25	25
JDBC/MySQL	48	50	50	51
JDBC/Mckoi	1416	4580	280	35
JDBC/Derby	605	1671	5744	8938
JDBC/HSQldb	1484	5391	11843	16393



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	176	510	1436	2520
JDBC/HXTT CSV	738	2274	6077	7601
JDBC/MySQL	1635	5155	14010	16456
JDBC/Mckoi	2559	6636	13249	13284
JDBC/Derby	1206	3807	8453	10728
JDBC/HSQldb	14430	14632	15051	31078

