

4D

Speed improvement

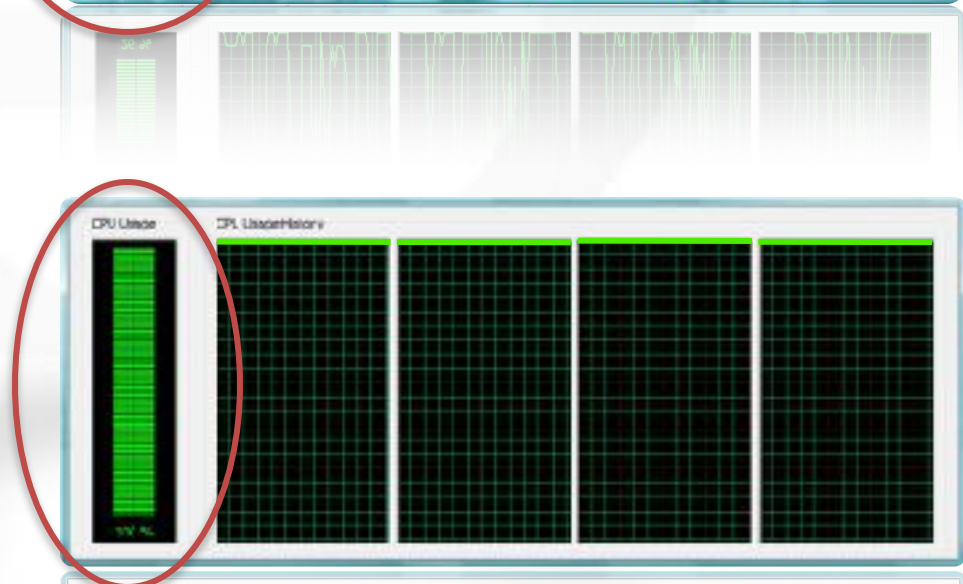
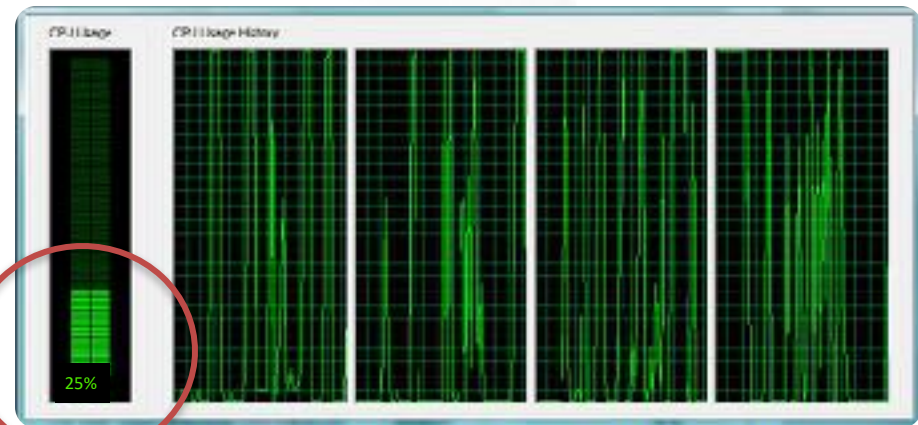


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4D 2004 vs v11

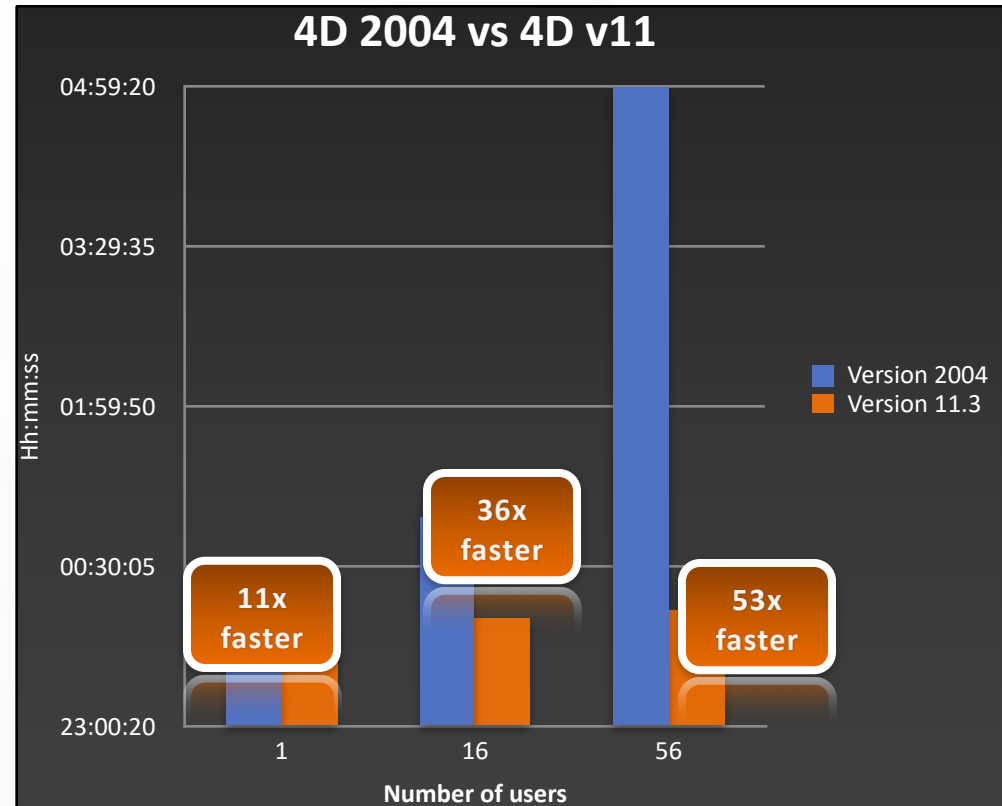
4 cores CPU

- CPU usage
 - 2004 on full load
 - The total loads do not exceed 25%.
 - Like if it used 100% of 1 CPU.
 - Version 11 on full load
 - If necessary, each CPU can be used at 100%



Benchmark on a Search

- Query: Indexed search returning 80% of the records
- A certain number of processes are spread across several Clients.
- The Query runs 1000 times on each process.
- We measure the global time (hh:mm:ss) needed by the server to process all the queries.

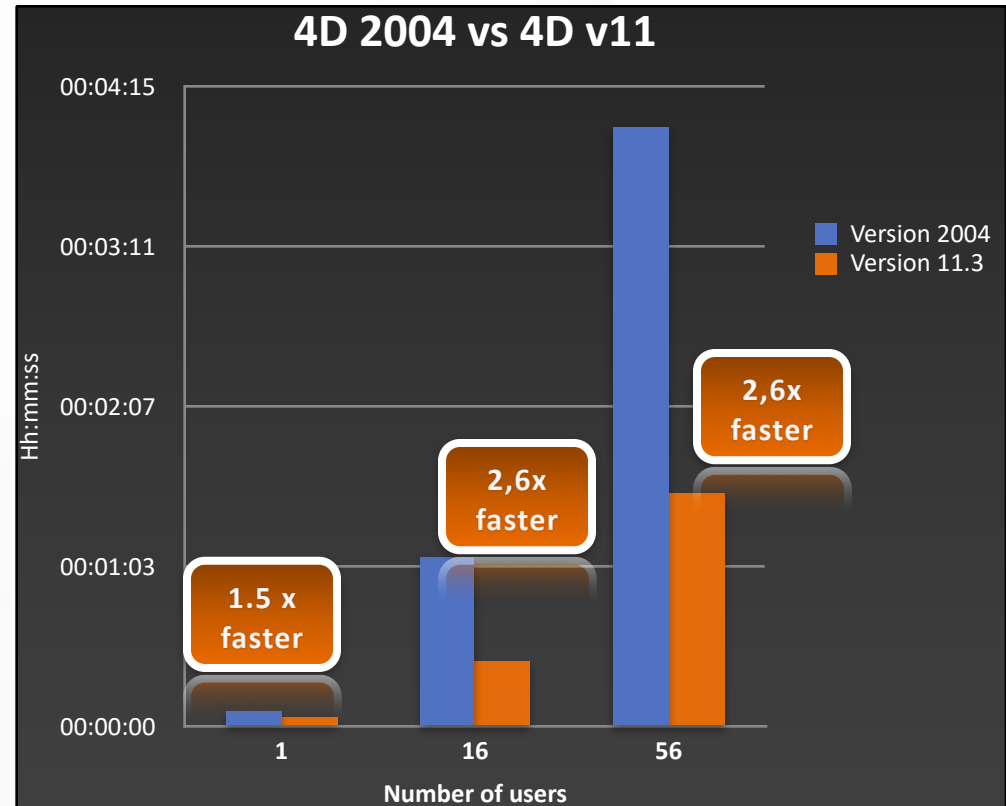


Nb Clients	Total queries	Version 2004	Version 11.3	ratio
1	1 000	0:04:07	0:00:22	11 x faster
16	16 000	0:57:36	0:01:36	36 x faster
56	56 000	4:59:04	0:05:37	53 x faster



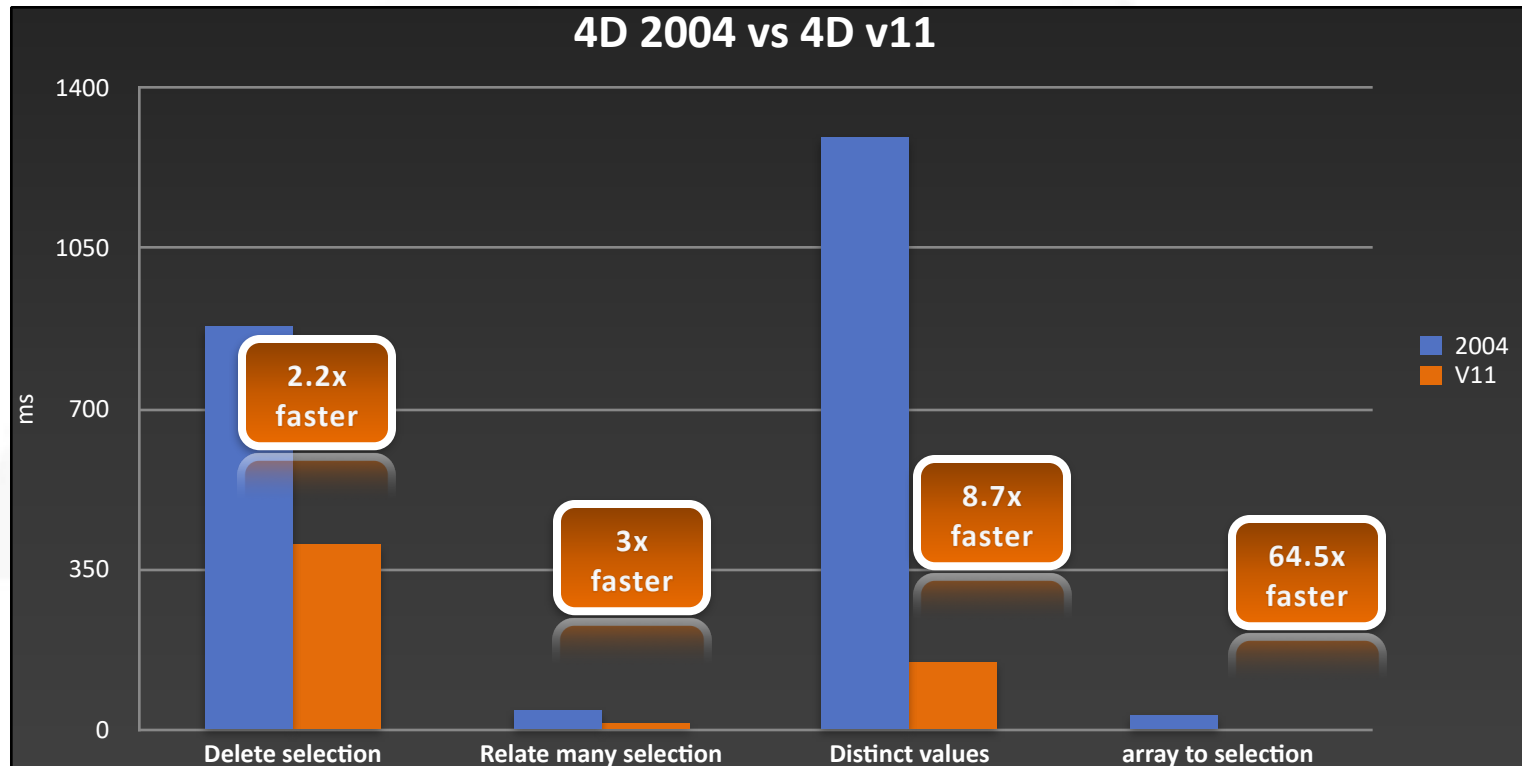
Benchmark on a Sort

- Using the same selection as in previous test (800 000 records) we sort the records by date.
- The query runs 100 times on each client. (not 1000 times as previously)
- We measure the global time (hh:mm:ss) needed by the server to process all the queries.



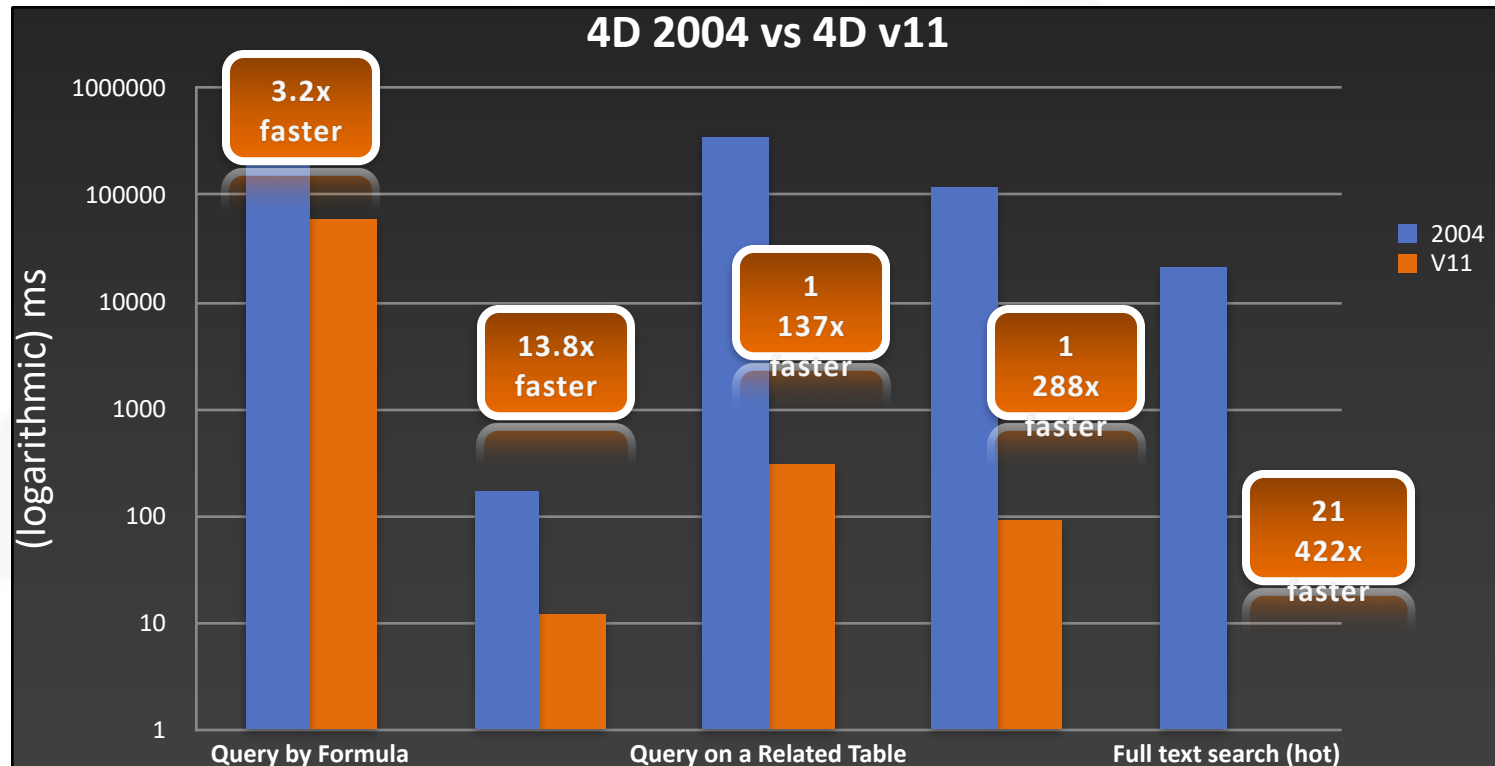
Nb Clients	Total queries	Version 2004	Version 11.3	ratio
1	100	0:00:06	0:00:04	1.5 x faster
16	1 600	0:01:08	0:00:26	2.6 x faster
56	5 600	0:03:59	0:01:33	2.6 x faster

Benchmark (I)



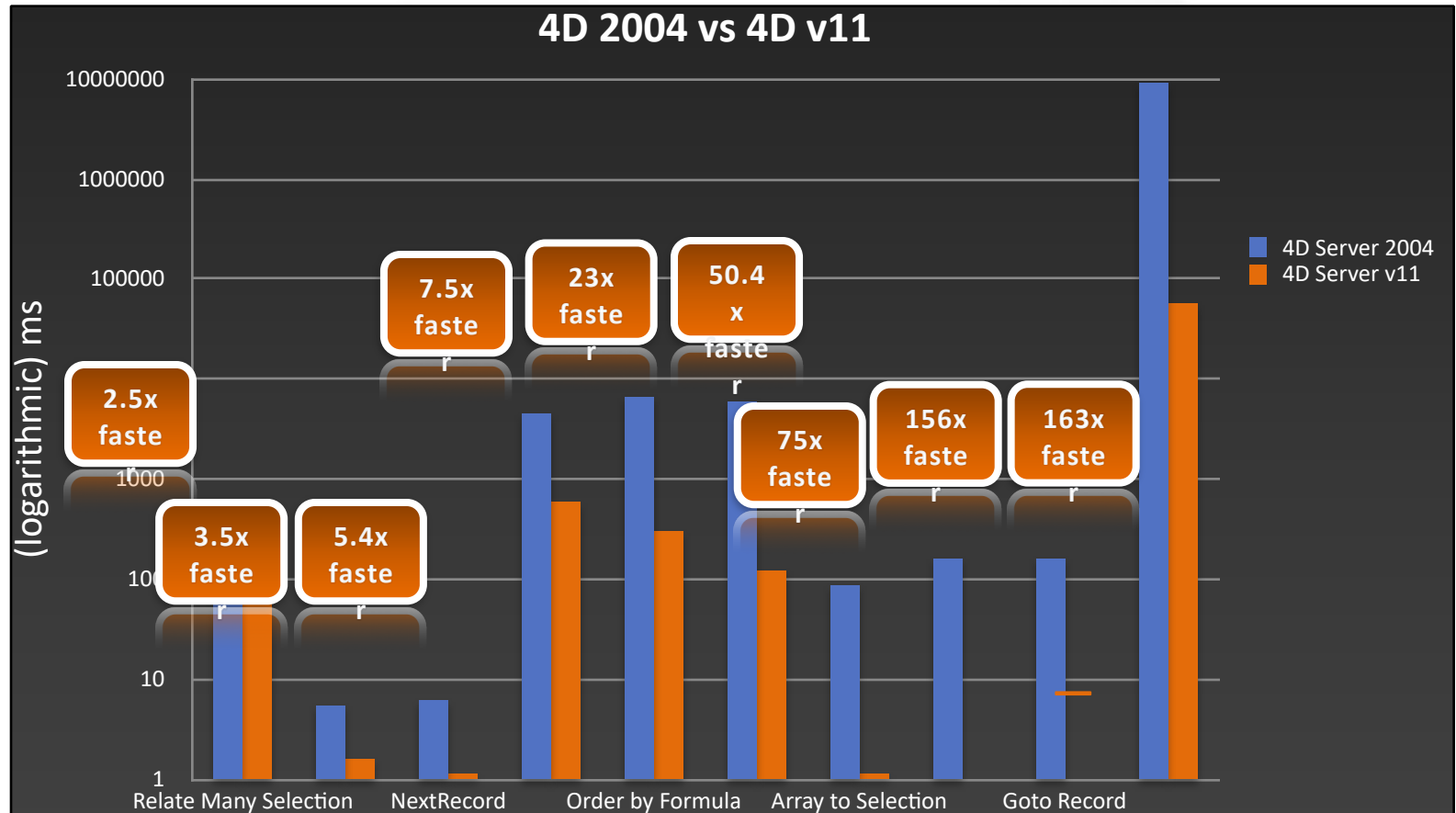
Query	2004	V11	Ratio
Delete selection	881,4	406	2.2 x faster
Relate many selection	47	15,6	3 x faster
Distinct values	1294	148,2	8.7 x faster
Array to selection	30,238	0,469	64.5 x faster

Benchmark (II)



Query	2004	V11	Ratio
Query by Formula	192094	59930	3.2 x faster
Boolean Search	172	12,5	13.8 x faster
Query on a Related Table	346812	305	1137 x faster
Full text search (cold)	119781	93	1288 x faster
Full text search (hot)	21422	0	21422 x faster

Benchmark (III) : C/S



Speed improvement in C/S

Query	4D Server 2004	4D Server v11	Ratio 4D Server 2004 vs v11
Relate Many Selection	164	65,6	
create record	0,548	0,156	
next record	1,217	0,227	
delete selection	4544,267	602,6	
sort by formula	6734	295,111	
distinct values	6000	118,7	
array to selection	28,704	0,382	
full text search (hot)	125	0,802	
goto record	0,816	0,005	
search by formula	9183453	55703	

Speed improvement in C/S

Query	4D Server 2004	4D Server v11	Ratio 4D Server 2004 vs v11
Relate Many Selection	164	65,6	2.5x faster
create record	0,548	0,156	3.5x faster
next record	1,217	0,227	5.4x faster
delete selection	4544,267	602,6	7.5x faster
sort by formula	6734	295,111	22.8x faster
distinct values	6000	118,7	50.5x faster
array to selection	28,704	0,382	75.1x faster
full text search (hot)	125	0,802	156x faster
goto record	0,816	0,005	163.2x faster
search by formula	9183453	55703	165x faster