

Performance Metrics for CA ERwin® Data Modeler r9 Workgroup Edition



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Introduction

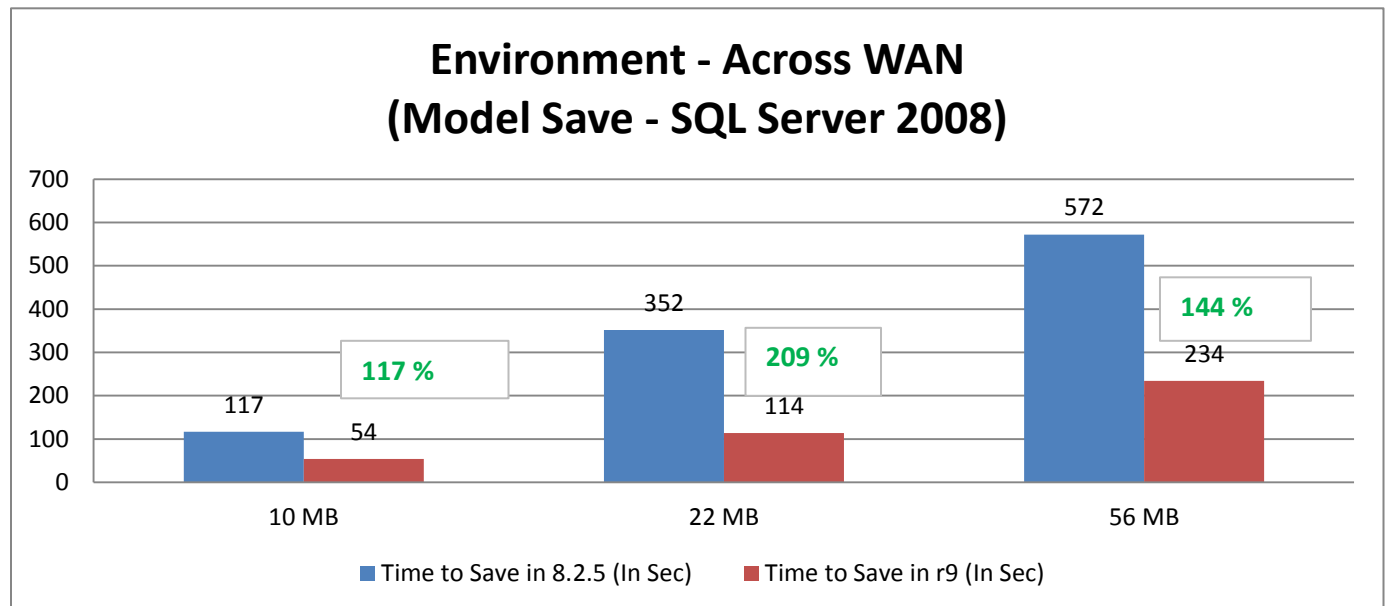
This document provides a sampling of performance metrics of the CA ERwin Data Modeler r9 Workgroup Edition compared to version r8.2.5, in particular environments. Tests were run using both SQL Server 2008 and Oracle 11g in the following environments hosting the three-tier architecture: across a WAN, across a LAN, and hosted on the same machine. Tests were performed for the following actions: Mart Model Save, Mart Model Open, and Incremental Save.

Environment - Across WAN using SQL Server 2008

Environment - Across WAN	
Database (SQL Server 2008)	US Server
App Server (Tomcat)	US Server
Client (CA ERwin Data Modeler)	India

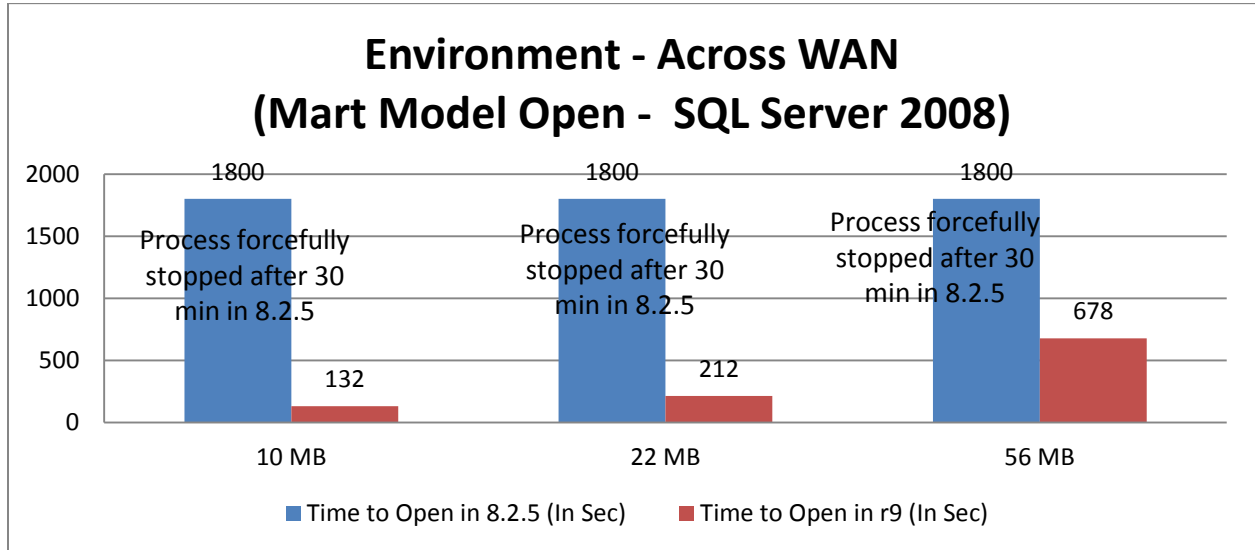
Mart Model Save - SQL Server 2008

Model Size	No of Tables	No Of Objects	Time to Save in 8.2.5 (In Sec)	Time to Save in r9 (In Sec)	% Difference
10 MB	641	33475	117	54	117%
22 MB	1091	37395	352	114	209%
56 MB	1822	160772	572	234	144%



Mart Model Open - SQL Server 2008

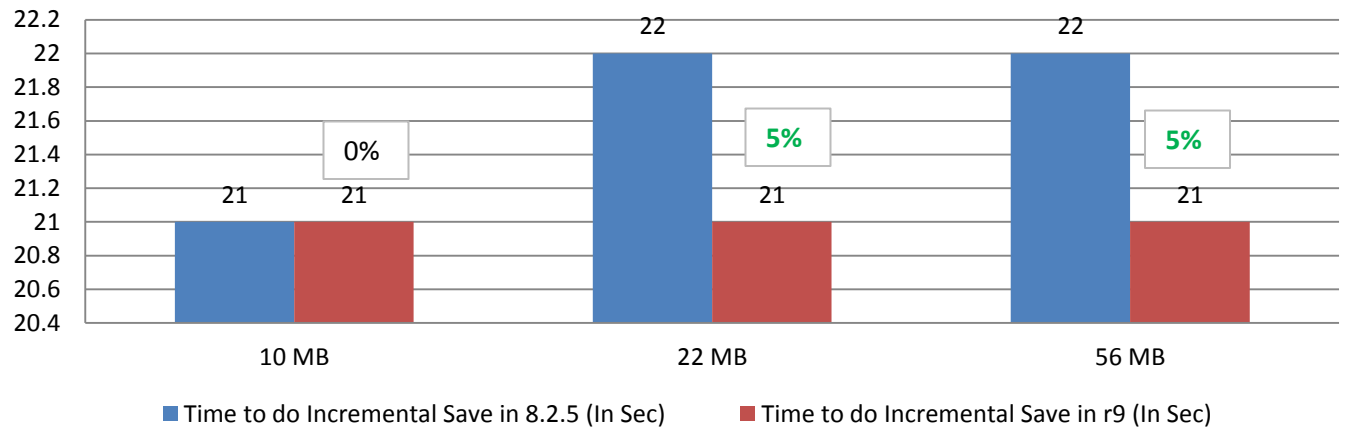
Model Size	No of Tables	No Of Objects	Time to Open in 8.2.5 (In Sec)	Time to Open in r9 (In Sec)	% Difference
10 MB	641	33475	>1800	132	1264%
22 MB	1091	37395	>1800	212	749%
56 MB	1822	160772	>1800	678	165%



Incremental Save - SQL Server 2008

Model Size	No of Tables	No Of Objects	Time to do Incremental Save in 8.2.5 (In Sec)	Time to do Incremental Save in r9 (In Sec)	% Difference
10 MB	641	33475	21	21	0%
22 MB	1091	37395	22	21	5%
56 MB	1822	160772	22	21	5%

Environment - Across WAN (Incremental Save SQL Server 2008)

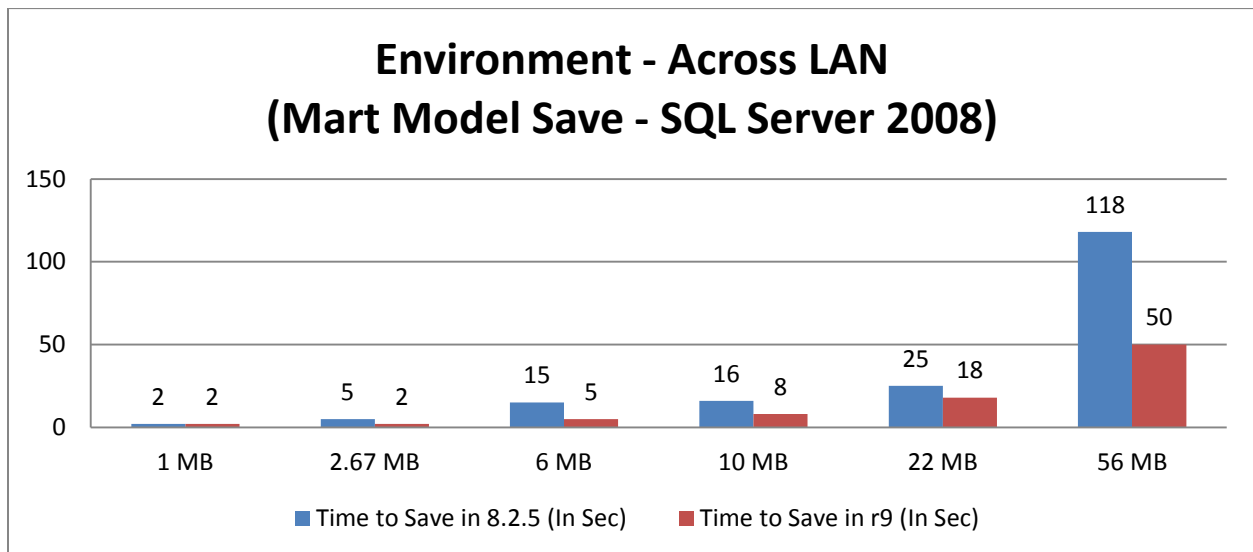


Environment - Across LAN using SQL Server 2008

Environment - Across LAN	
Database (SQL Server 2008)	India
App Server (Tomcat)	India
Client (CA ERwin Data Modeler)	India

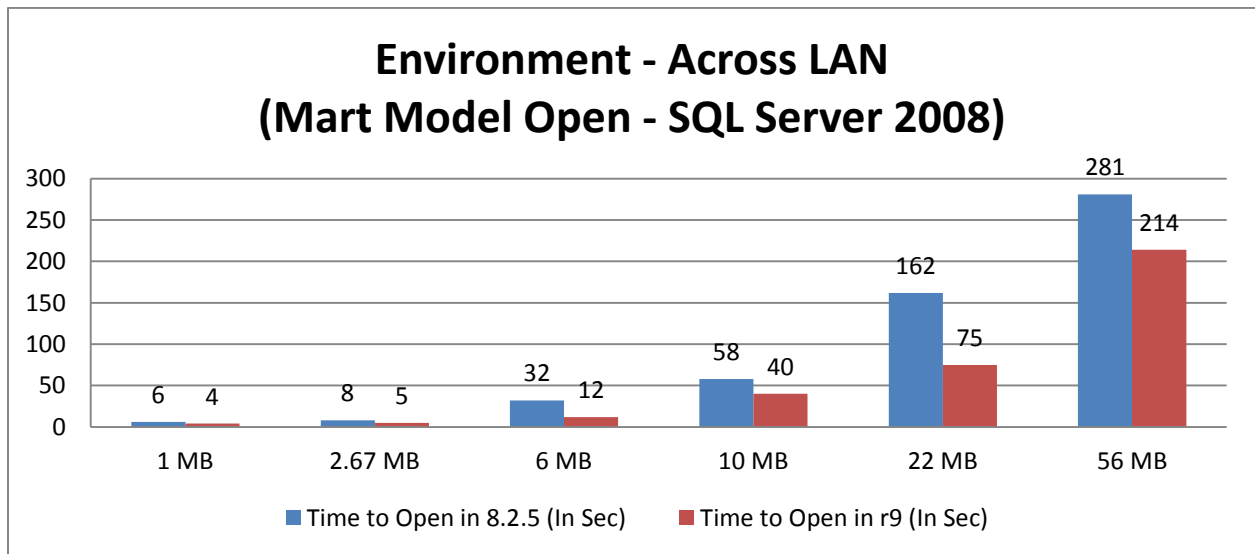
Mart Model Save - SQL Server 2008

Model Size	No of Tables	No Of Objects	Time to Save in 8.2.5 (In Sec)	Time to Save in r9 (In Sec)	% Difference
1 MB	31	4670	2	2	0%
2.67 MB	101	6506	5	2	150%
6 MB	431	17026	15	5	200%
10 MB	641	33475	16	8	100%
22 MB	1091	37395	25	18	39%
56 MB	1822	160772	118	50	136%



Mart Model Open - SQL Server 2008

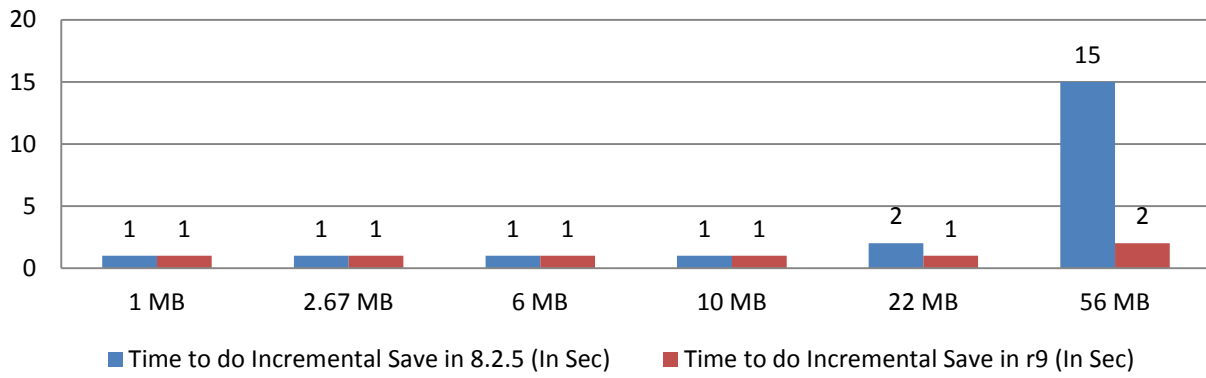
Model Size	No of Tables	No Of Objects	Time to Open in 8.2.5 (In Sec)	Time to Open in r9 (In Sec)	% Difference
1 MB	31	4670	6	4	50%
2.67 MB	101	6506	8	5	60%
6 MB	431	17026	32	12	167%
10 MB	641	33475	58	40	45%
22 MB	1091	37395	162	75	116%
56 MB	1822	160772	281	214	31%



Incremental Save - SQL Server 2008

Model Size	No of Tables	No Of Objects	Time to do Incremental Save in 8.2.5 (In Sec)	Time to do Incremental Save in r9 (In Sec)	% Difference
1 MB	31	4670	1	1	0%
2.67 MB	101	6506	1	1	0%
6 MB	431	17026	1	1	0%
10 MB	641	33475	1	1	0%
22 MB	1091	37395	2	1	100%
56 MB	1822	160772	15	2	650%

Environment - Across LAN (Incremental Save - SQL Server 2008)

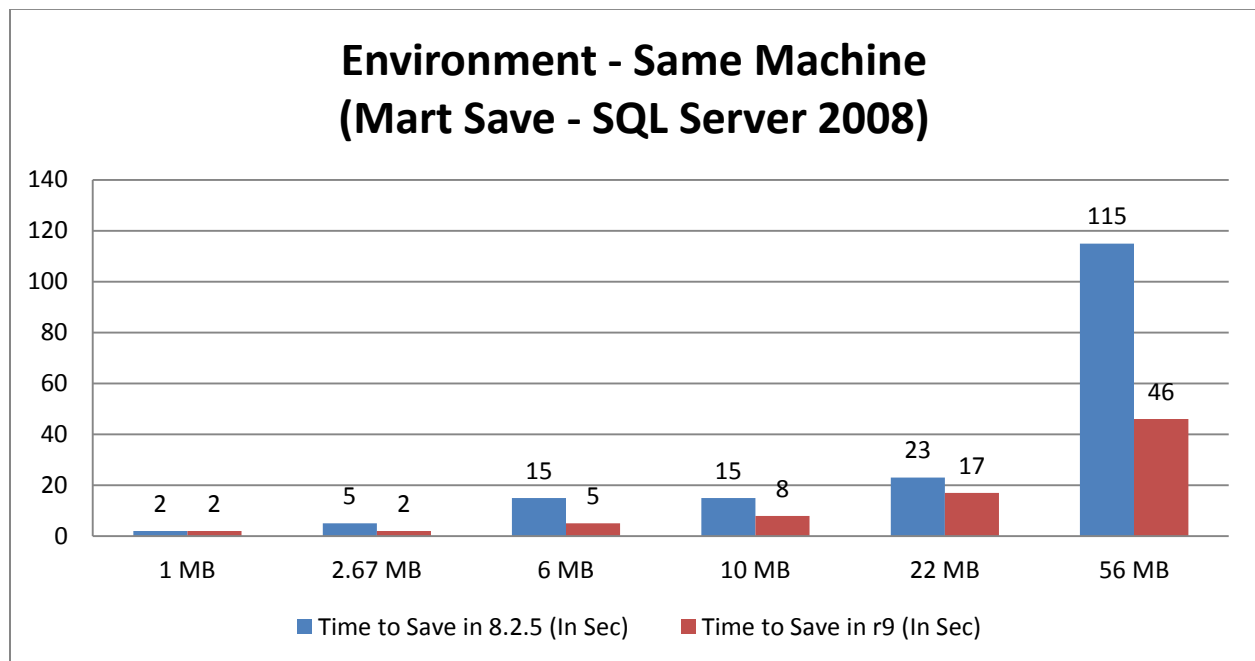


Environment – Same Machine using SQL Server 2008

Environment – Same Machine	
Database (SQL Server 2008)	India
App Server (Tomcat)	India
Client (CA ERwin Data Modeler)	India

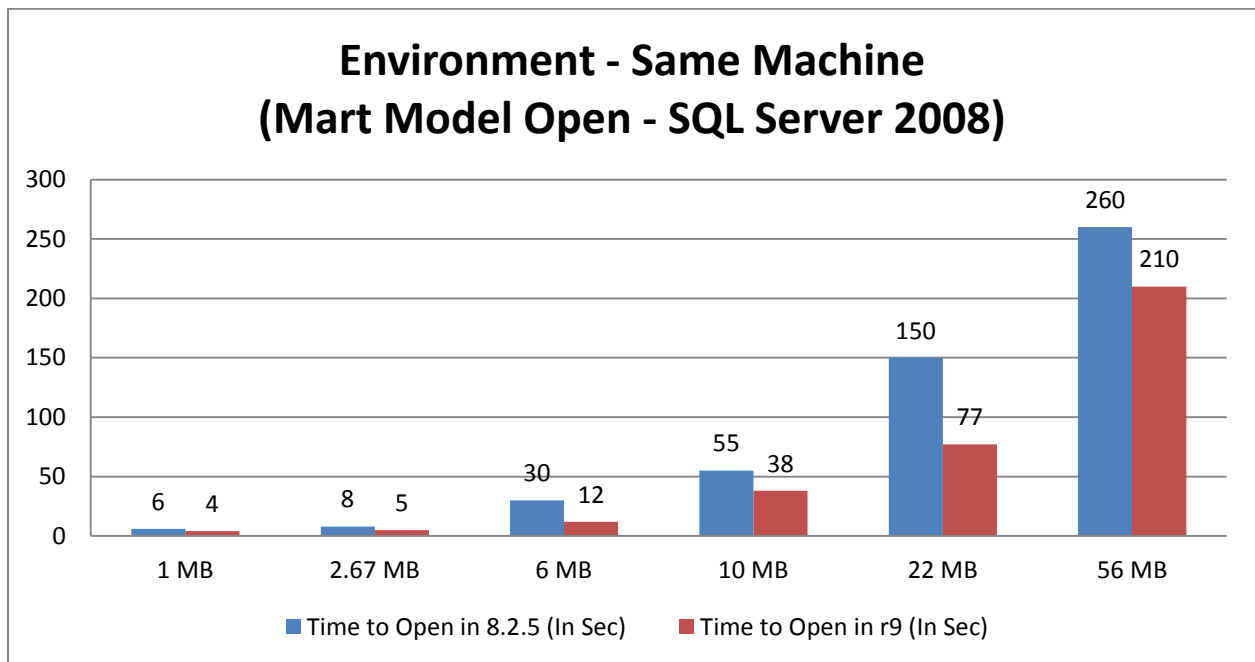
Mart Model Save - SQL Server 2008

Model Size	No of Tables	No Of Objects	Time to Save in 8.2.5 (In Sec)	Time to Save in r9 (In Sec)	% Difference
1 MB	31	4670	2	2	0%
2.67 MB	101	6506	5	2	88%
6 MB	431	17026	15	5	35%
10 MB	641	33475	15	8	88%
22 MB	1091	37395	23	17	35%
56 MB	1822	160772	115	46	150%



Mart Model Open - SQL Server 2008

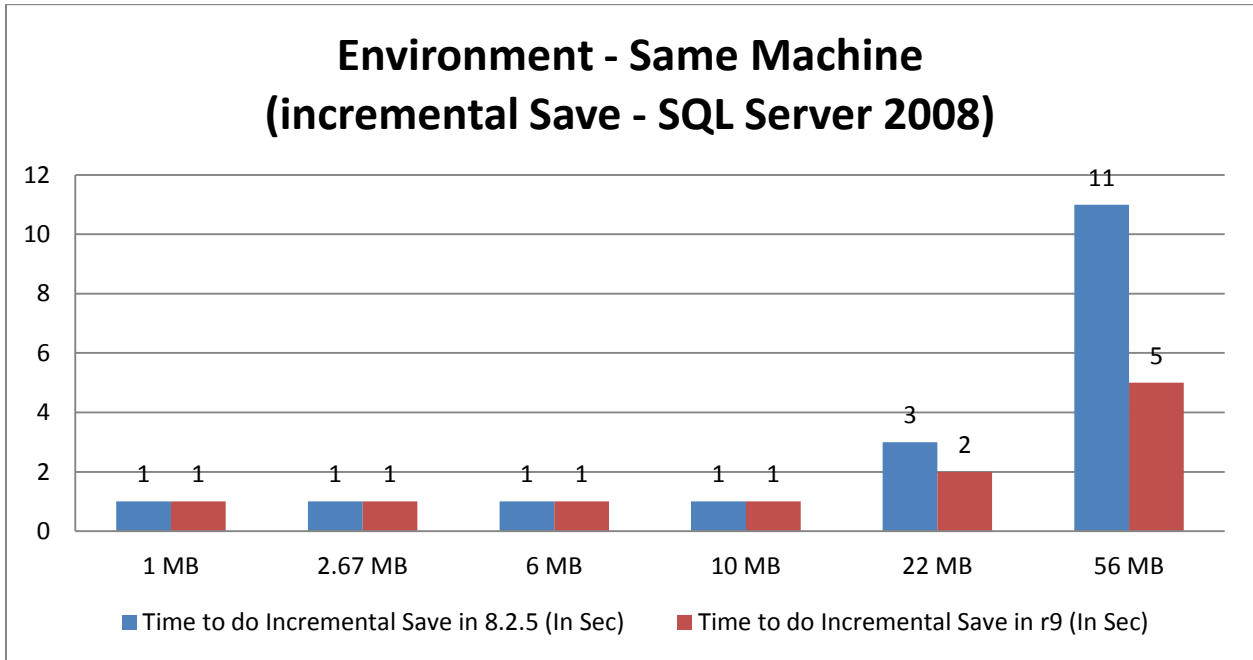
Model Size	No of Tables	No Of Objects	Time to Open in 8.2.5 (In Sec)	Time to Open in r9 (In Sec)	% Difference
1 MB	31	4670	6	4	50%
2.67 MB	101	6506	8	5	60%
6 MB	431	17026	30	12	150%
10 MB	641	33475	55	38	45%
22 MB	1091	37395	150	77	95%
56 MB	1822	160772	260	210	24%



Incremental Save - SQL Server 2008

Model Size	No of Tables	No Of Objects	Time to do Incremental Save in 8.2.5 (In Sec)	Time to do Incremental Save in r9 (In Sec)	% Difference
1 MB	31	4670	1	1	0%
2.67 MB	101	6506	1	1	0%
6 MB	431	17026	1	1	0%
10 MB	641	33475	1	1	0%
22 MB	1091	37395	3	2	50%

56 MB	1822	160772	11	5	120%
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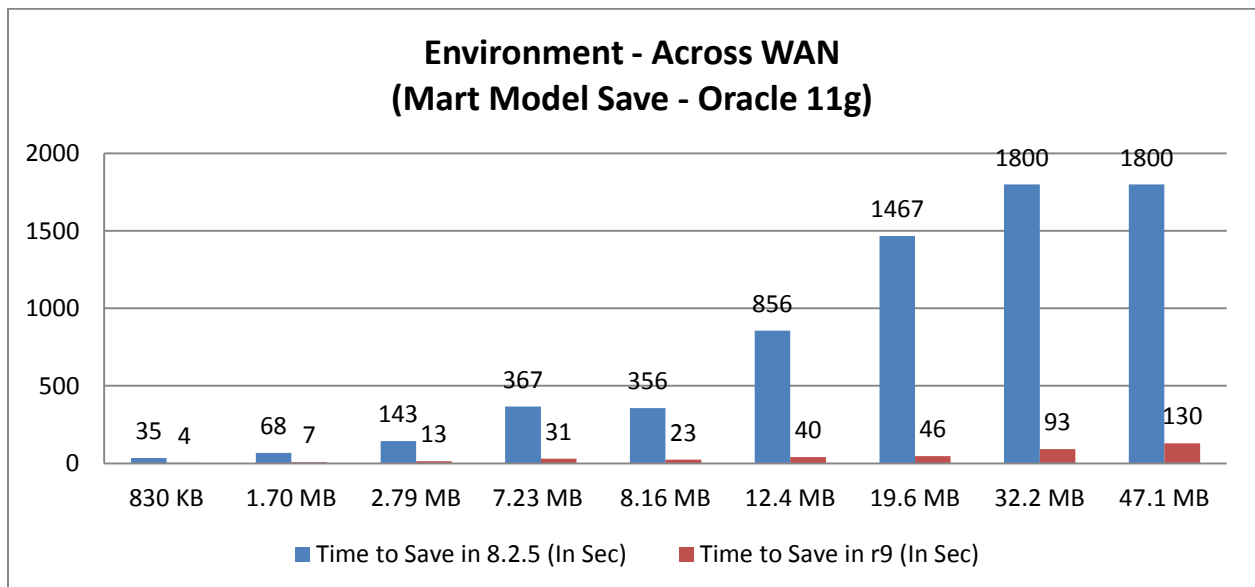


Environment - Across WAN using Oracle 11g

Environment - Across WAN	
Database (SQL Server 2008)	US Server
App Server (Tomcat)	US Server
Client (CA ERwin Data Modeler)	India

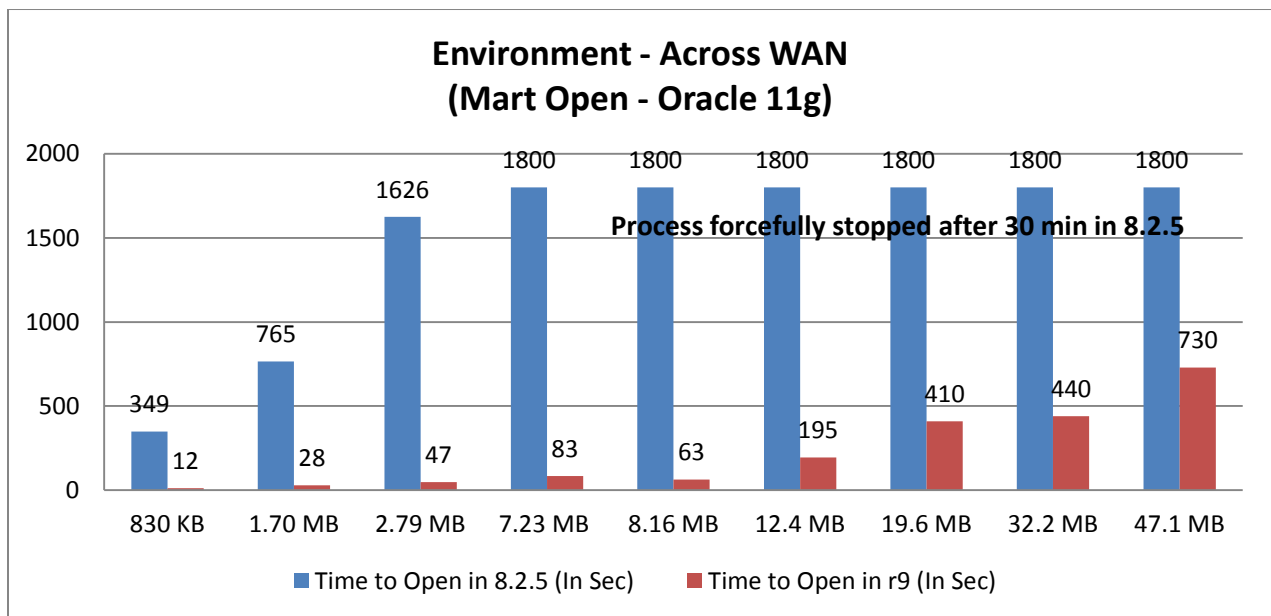
Mart Model Save - Oracle 11g

Model Size	No of Tables	No Of Objects	Time to Save in 8.2.5 (In Sec)	Time to Save in r9 (In Sec)	% Difference
830 KB	81	1605	35	4	775%
1.70 MB	235	6875	68	7	871%
2.79 MB	258	10246	143	13	1000%
7.23 MB	384	17829	367	31	1084%
8.16 MB	301	9780	356	23	1448%
12.4 MB	311	66481	856	40	2040%
19.6 MB	1081	87905	1467	46	3089%
32.2 MB	2464	90871	>1800	93	
47.1 MB	1822	156542	>1800	130	



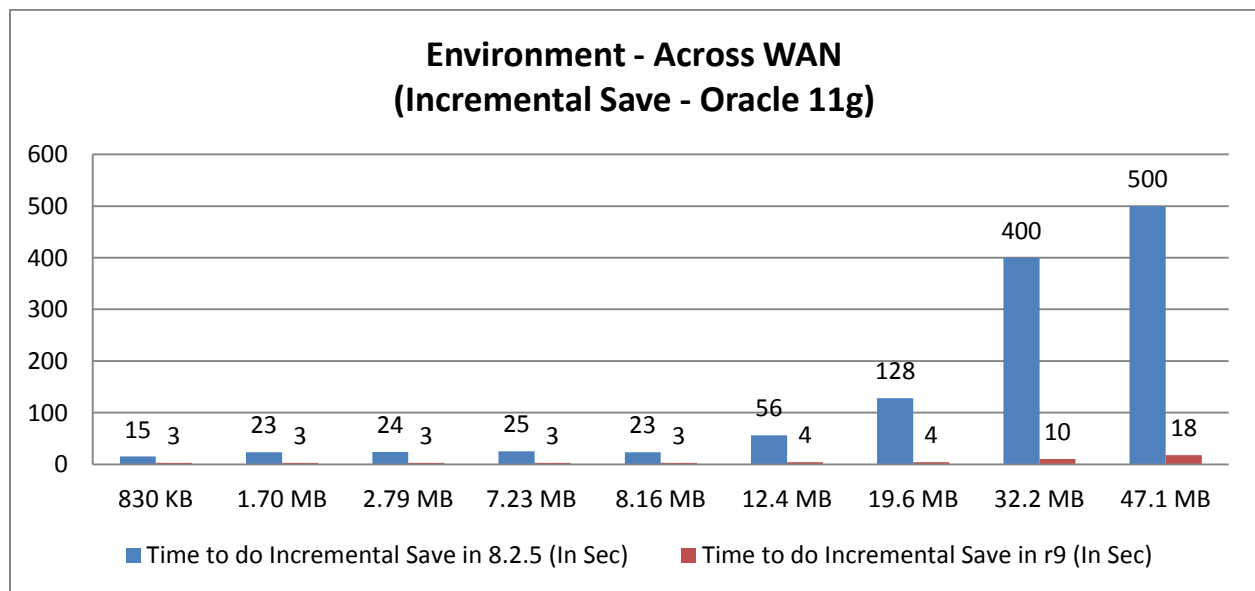
Mart Model Open - Oracle 11g

Model Size	No of Tables	No Of Objects	Time to Open in 8.2.5 (In Sec)	Time to Open in r9 (In Sec)	% Difference
830 KB	81	1605	349	12	2808%
1.70 MB	235	6875	765	28	2632%
2.79 MB	258	10246	1626	47	3360%
7.23 MB	384	17829	> 1800	83	
8.16 MB	301	9780	> 1800	63	
12.4 MB	311	66481	> 1800	195	
19.6 MB	1081	87905	> 1800	410	
32.2 MB	2464	90871	> 1800	440	
47.1 MB	1822	156542	> 1800	730	



Incremental Save - Oracle 11g

Model Size	No of Tables	No Of Objects	Time to do Incremental Save in 8.2.5 (In Sec)	Time to do Incremental Save in r9 (In Sec)	% Difference
830 KB	81	1605	15	3	400%
1.70 MB	235	6875	23	3	667%
2.79 MB	258	10246	24	3	700%
7.23 MB	384	17829	25	3	733%
8.16 MB	301	9780	23	3	667%
12.4 MB	311	66481	56	4	1300%
19.6 MB	1081	87905	128	4	3100%
32.2 MB	2464	90871	400	10	3900%
47.1 MB	1822	156542	500	18	2678%



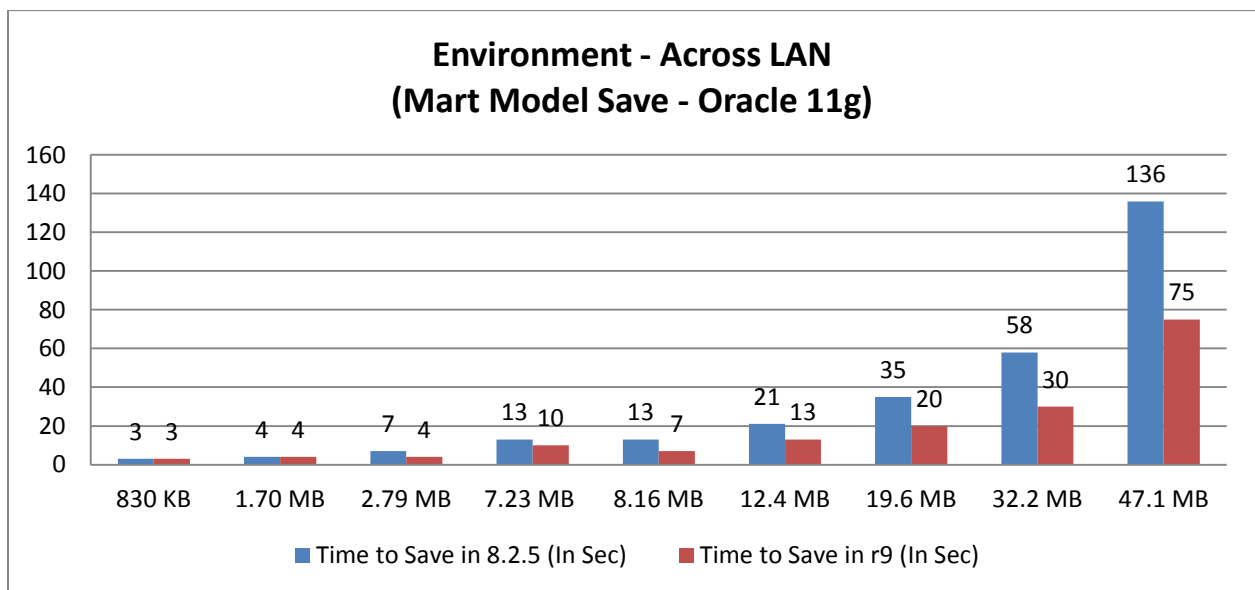
Environment - Across LAN using Oracle 11g

Environment - Across LAN	
Database (SQL Server 2008)	India

App Server (Tomcat)	India
Client (CA ERwin Data Modeler)	India

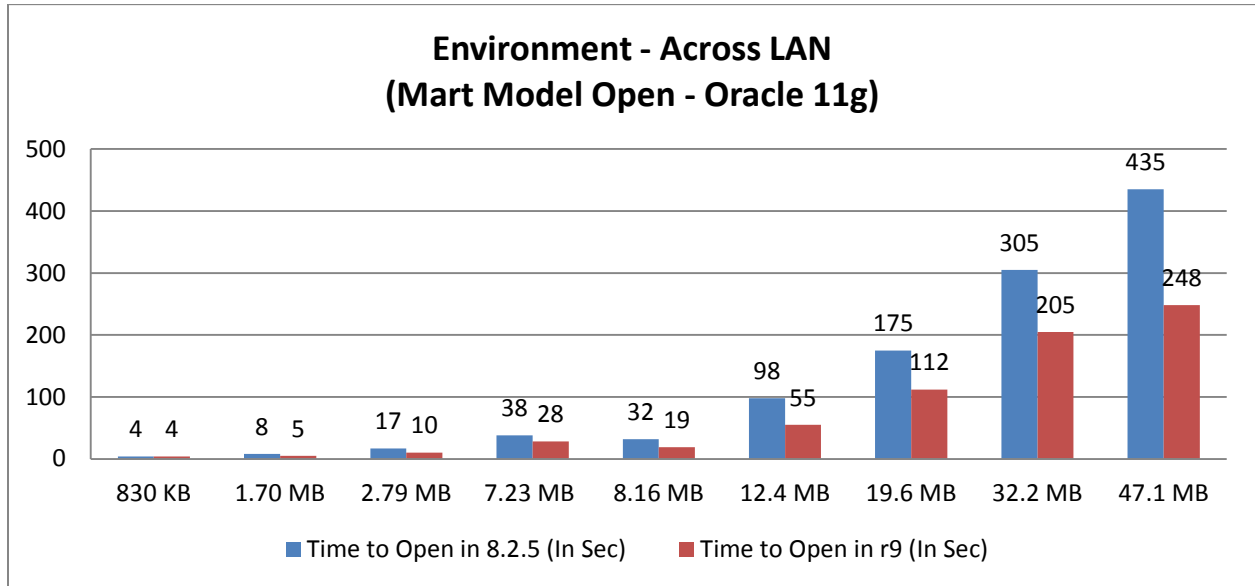
Mart Model Save - Oracle 11g

Model Size	No of Tables	No Of Objects	Time to Save in 8.2.5 (In Sec)	Time to Save in r9 (In Sec)	% Difference
830 KB	81	1605	3	3	0%
1.70 MB	235	6875	4	4	0%
2.79 MB	258	10246	7	4	75%
7.23 MB	384	17829	13	10	30%
8.16 MB	301	9780	13	7	86%
12.4 MB	311	66481	21	13	62%
19.6 MB	1081	87905	35	20	75%
32.2 MB	2464	90871	58	30	93%
47.1 MB	1822	156542	136	75	81%



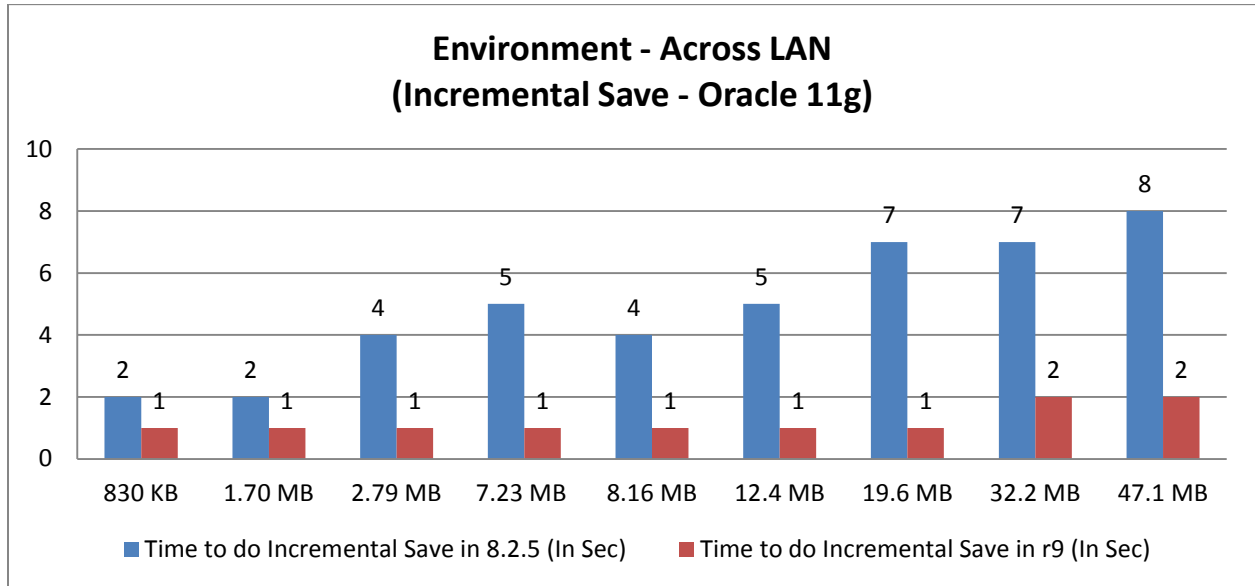
Mart Model Open - Oracle 11g

Model Size	No of Tables	No Of Objects	Time to Open in 8.2.5 (In Sec)	Time to Open in r9 (In Sec)	% Difference
830 KB	81	1605	4	4	0%
1.70 MB	235	6875	8	5	60%
2.79 MB	258	10246	17	10	70%
7.23 MB	384	17829	38	28	36%
8.16 MB	301	9780	32	19	68%
12.4 MB	311	66481	98	55	78%
19.6 MB	1081	87905	175	112	56%
32.2 MB	2464	90871	305	205	49%
47.1 MB	1822	156542	435	248	75%



Incremental Save - Oracle 11g

Model Size	No of Tables	No Of Objects	Time to do Incremental Save in 8.2.5 (In Sec)	Time to do Incremental Save in r9 (In Sec)	% Difference
830 KB	81	1605	2	1	100%
1.70 MB	235	6875	2	1	100%
2.79 MB	258	10246	4	1	300%
7.23 MB	384	17829	5	1	400%
8.16 MB	301	9780	4	1	300%
12.4 MB	311	66481	5	1	400%
19.6 MB	1081	87905	7	1	600%
32.2 MB	2464	90871	7	2	250%
47.1 MB	1822	156542	8	2	300%

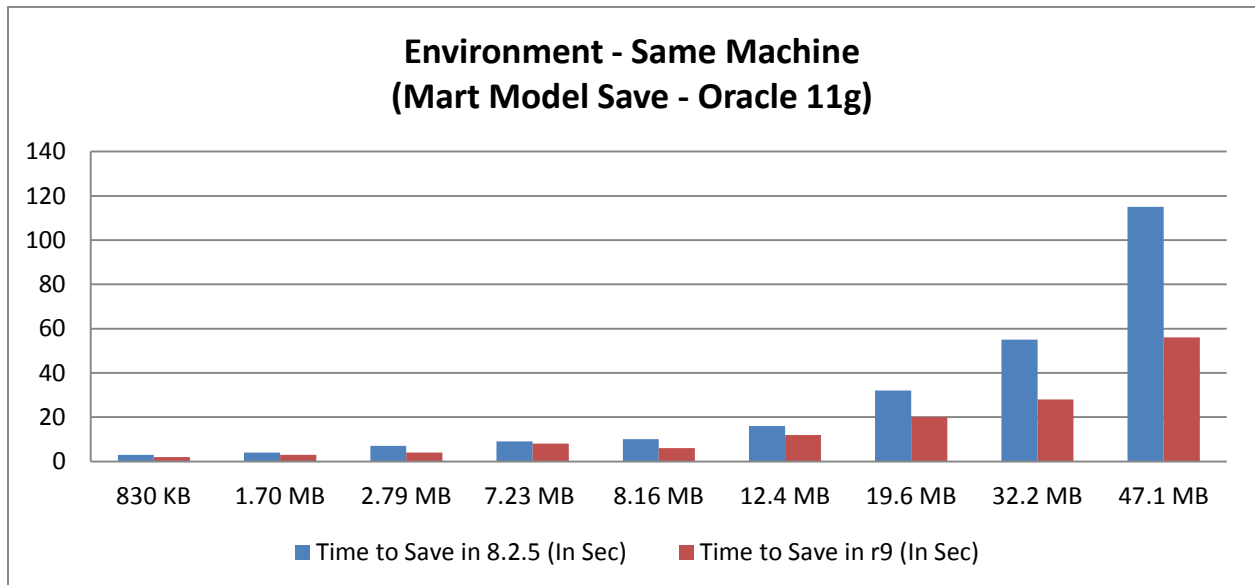


Environment – Same Machine using Oracle 11g

Environment – Same Machine	
Database (SQL Server 2008)	India
App Server (Tomcat)	India
Client (CA ERwin Data Modeler)	India

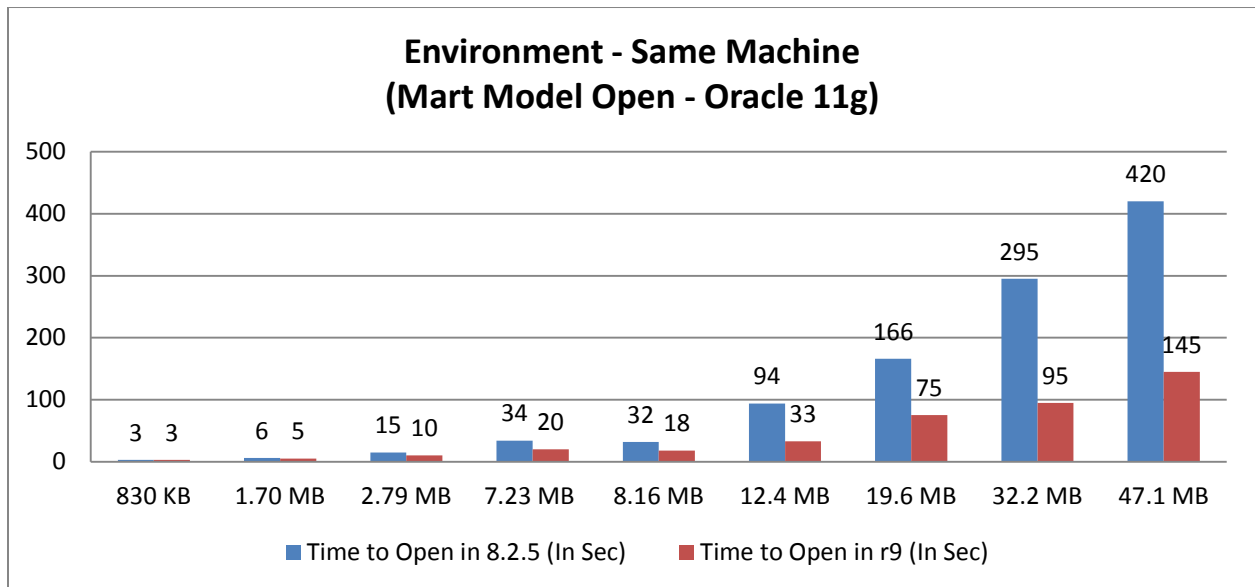
Mart Model Save – Oracle 11g

Model Size	No of Tables	No Of Objects	Time to Save in 8.2.5 (In Sec)	Time to Save in r9 (In Sec)	% Difference
830 KB	81	1605	3	2	50%
1.70 MB	235	6875	4	3	33%
2.79 MB	258	10246	7	4	75%
7.23 MB	384	17829	9	8	13%
8.16 MB	301	9780	10	6	67%
12.4 MB	311	66481	16	12	33%
19.6 MB	1081	87905	32	20	60%
32.2 MB	2464	90871	55	28	96%
47.1 MB	1822	156542	115	56	105%



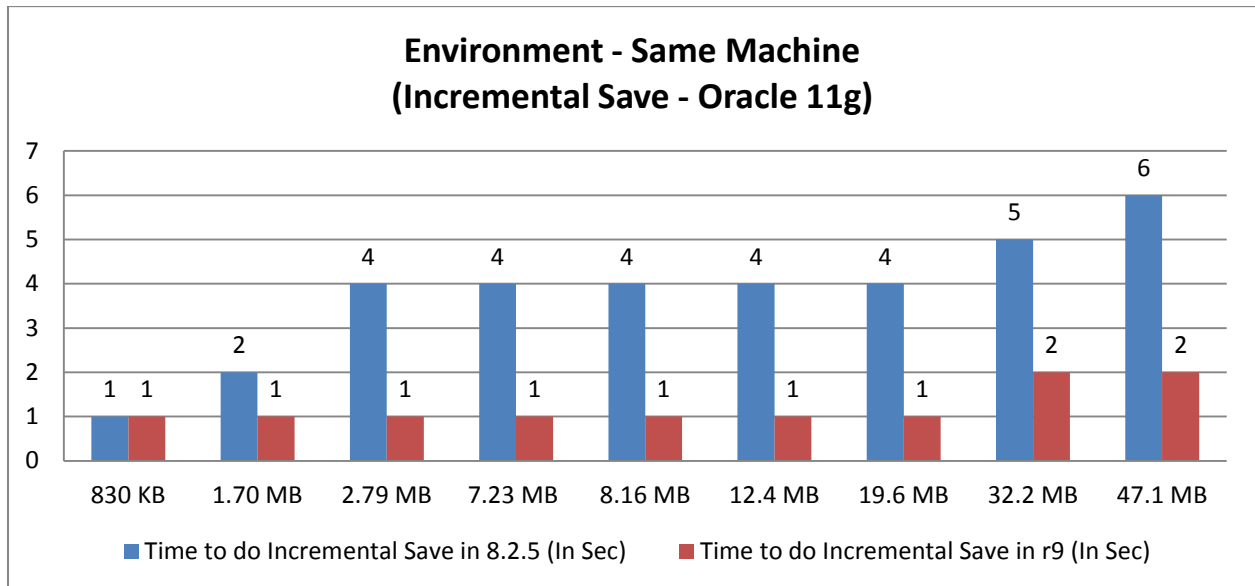
Mart Model Open - Oracle 11g

Model Size	No of Tables	No Of Objects	Time to Open in 8.2.5 (In Sec)	Time to Open in r9 (In Sec)	% Difference
830 KB	81	1605	3	3	33%
1.70 MB	235	6875	6	5	20%
2.79 MB	258	10246	15	10	50%
7.23 MB	384	17829	34	20	70%
8.16 MB	301	9780	32	18	78%
12.4 MB	311	66481	94	33	185%
19.6 MB	1081	87905	166	75	121%
32.2 MB	2464	90871	295	95	211%
47.1 MB	1822	156542	420	145	190%



Incremental Save - Oracle 11g

Model Size	No of Tables	No Of Objects	Time to do Incremental Save in 8.2.5 (In Sec)	Time to do Incremental Save in r9 (In Sec)	% Difference
830 KB	81	1605	1	1	0%
1.70 MB	235	6875	2	1	100%
2.79 MB	258	10246	4	1	300%
7.23 MB	384	17829	4	1	300%
8.16 MB	301	9780	4	1	300%
12.4 MB	311	66481	4	1	300%
19.6 MB	1081	87905	4	1	300%
32.2 MB	2464	90871	5	2	150%
47.1 MB	1822	156542	6	2	200%



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