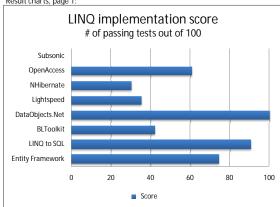
## ORMBattle.NET test results

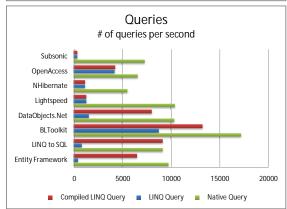
Visit <a href="http://ormbattle.net">http://ormbattle.net</a> for details

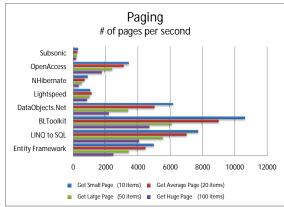
# count	5 6 6 6 9 12 10 4 8 8 13 4 9 21 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		0 3 1 4 4.2 1 1 3.2 2 0 0 9 1 1 1 117 87 30 26 4 74,4 [, count of tests), more in the state of t		4 6 6 6 6 1 1 6 8 4 1 1 3 1 3 1 3 1 1 3 1 1 3 1 1 1 3 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	900 3 3 6 6 6 6 5.5 10 9.2 4 5.1 9.2 4 5.1 8 2.1 3.1 117 41 76 65 11 35 11 35	3 4,2 6 6 6,1 10,2 4 6 6,1 3 6,2 116 2,1 4 117 35 82 79,9 29,9	2 4 5 5 5 2 5 5 2 3 3 3 1 4.1 6.1 2 2 2 117 71 46 44 2 60,7		f,a f,a f,a f,a f,a f,a f,a f,a f,a f,a
LINQ implementation   Aggregates   O   All/Any/Contains   O   Complex   O   Complex   O   Complex   O   Complex   O   Complex   O   O   O   O   O   O   O   O   O	5 6 6 6 9 12 10 4 8 13 4 9 21 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	n/a	0 3 1 4 4,2 1 1 3,2 2 0 0 9 1 1 1 1 17 87 30 26 4 74,4	0 1 0 2 2 2 1 0 0 2 1 1 0 0 1 1 1 1 1 1	4 4 6 6 6 6 1 1 6 6 6 4 1 1 8 8 4 1 1 3 1 3 1 3 1 1 3 1 1 3 1 1 1 3 1 1 1 1 3 1 1 1 1 3 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 6 6 6 6 5,5 10 4 5,1 9,2 4 5,1 8 8 2,1 3,1 117 41 76 65 111 35	3 4,2 6 6 6 6,1 10,2 4 6 6,1 3 6,2 16 2,1 4 117 35 82 73 9 29,9	2 4 5 5 5 2 5 2 3 3 1 4,1 6,1 2 2 2	n/a	f,a f,a f,a f,a f,a f,a f,a f,a f,a f,a
All/Any/Contains  Complex  Element operations  Filtering  Grouping  Join  Ordering  Projections  References  Set operations  Standard functions  Take/Skip  Type casts  UINO Implementation total:  Performed  Performed  Persesed  Failed  Ordering  Othering	117	n/a	3 1 4 4,2 1 1 3,2 2 0 0 0 9 1 1 1 17 87 30 26 4 74,4	1 0 2 2 2.2 1 0 0 0 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1	6 6 6 1 1 6 4 1 1 8 4 4 5,1 1 3 1 1 3 6 6 8 6 6 8 1 1 1 1 3 1 1 1 3 1 1 1 1 1 1 1 1 1 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 6 6 5,5 10 4 5,1 9,2 4 5,1 8,2,1 3,1 117 41 76 65 11 35	4,2 6,6 6,1 10,2 4,6 6,1 1,3 6,2 16,2,1 4,1 117,3 82,7 73,9 9,29,9	4 5 5 5 2 5 2 3 3 1 4,1 6,1 2 2 2 117 71 46 44 2 60,7	n/a	f,a f,a f,a f,a f,a f,a f,a f,a f,a e f,a f,a e f,a f,a f,a f,a f,a f,a f,a f,a f,a f,a
Complex	117	n/a	1 4 4,2 1 1 1 3,2 2 0 0 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 2 2,2 1 0 0 0 1 1 0 1 1 106 11 9 2 90,6	6 6 1 6 4 1 1 8 4 5.1 1 3 1 1 3 68 67 1 41,9	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 6 5,5 10 4 5,1 9,2 4 5,1 8 2,1 3,1 117 41 76 65 51 111 35	6 6 6 6 1 10,2 4 6 6,1 3 6,2 16 2,1 4 117 35 82 73 9 29,9	5 5 2 5 2 3 3 1 4,1 6,1 2 2 2 117 71 46 44 2 60,7	n/a	f,a f,a f,a f,a f,a f,a f,a f,a f,a s f,a f,a s f,a f,a s f,a f,a f,a f,a f,a f,a f,a f,a f,a f,a
Element operations	9 12 10 4 8 8 13 4 9 21 5 5 5 5	n/a	4 4,2 1 1 3,2 2 0 0 9 1 1 1 17 87 30 26 4 74,4	2 2,2 1 0 0 2 1 1 0 0 1 1 106 11 9 2 90,6	6 1 6 4 1 1 8 4 5,1 1 3 1 3 1 49 68 67 1 41,9	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 5,5 10 4 5,1 9,2 4 5,1 8 2,1 3,1 117 41 76 65 111 35	6 6.1 10,2 4 6 6.1 3 3 6,2 116 12,1 4 4 117 35 82 73 9 29,9	5 2 5 2 3 3 1 4,1 6,1 2 2 2 117 71 46 44 2 60,7	n/a	f,a f,a f,a f,a f,a f,a f,a f,a f,a sequence
Filtering 0 Grouping 0 Join 0 Join 0 Projections 0 References 0 Set operations 0 Standard functions 0 Take/Skip 0 Type casts 0  LINQ Implementation total: Performed 0 Passed 0 Failed 0 Properly 0 Asserted 0 Score 0  Color bar  Units:  f/a total a # count % perce  CRUD Performance: Fetch 0 Single Operation:	12 10 4 8 13 4 9 21 5 5 5 117 117 117 117 110 110 110 111 111	n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a	4,2 1 1 3,2 2 0 0 9 1 1 1 117 87 30 26 4 74,4	2,2 1 0 2 1 0 0 1 1 106 11 9 2 90,6	1 6 4 1 1 8 4 5.1 13 1 3 1 17 49 68 67 1 141,9	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5,5 10 4 5,1 9,2 4 5,1 8 2,1 3,1 117 41 76 65 11 35	6,1 10,2 4 6 6,1 3 6,2 16 2,1 4 117 35 82 73 9 29,9	2 5 2 3 3 1 4,1 6,1 2 2 2 117 71 46 44 2 60,7	n/a	f,a f,a f,a f,a f,a f,a f,a f,a f,a f,a
Grouping	10 4 8 13 4 9 21 5 5 5 117 117 117 110 110 110 110 111 110	n/a	1 1 3,2 2 0 0 9 1 1 1 17 87 30 26 4 74,4	1 0 2 1 0 0 1 1 117 106 111 9 2 90.6	6 4 1 1 8 4 4 5,1 13 1 3 3 1 17 49 68 67 1 1 41,9 1 th assertion	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 4 5.1 9.2 4 5.1 8 2.1 3.1 117 41 76 65 11 35	10,2 4 6 6,11 3 6,2 16 2,1 4 117 35 82 73 9 29,9	5 2 3 3 1 4,1 6,1 2 2 2 117 71 46 44 2 60,7	n/a	f,a f,a f,a f,a f,a f,a f,a f,a s f,a e f,a f,a f,a f,a s f,a f,a f,a f,a f,a f,a f,a f,a f,a f,a
Join	4 8 13 4 9 21 5 5 5 5 1117 117 117 117 117 117 1100 count of faile t	n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a	1 3,2 2 0 0 9 1 1 1 17 87 30 26 4 74,4	0 2 1 0 0 0 1 1 0 1 1 1 17 106 111 9 2 90.6	4 1 8 4 5,1 13 1 3 117 49 68 67 1 41,9	0 0 0 0 0 0 0 0 0 117 117 0 0 0	4 5.1 9.2 4 5.1 8 2.1 3.1 117 41 76 65 51 11 35	117 35 82 73 9 29,9	2 3 3 1 4,1 6,1 2 2 2 117 71 46 44 2 60,7	n/a	f.e. f.e. f.e. f.e. f.e. f.e. f.e. f.e.
Projections	13 4 9 21 5 5 5 5 117 117 117 117 110 100	n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a	2 0 0 9 1 1 1 17 87 30 26 4 74,4	2 1 0 0 1 1 106 11 9 2 90.6	8 4 5,1 13 1 3 1 49 68 67 1 41,9	0 0 0 0 0 0 0 117 117 0 0 0 100	9,2 4 5,1 8 2,1 3,1 117 41 76 65 11 35	6,1 3,6,2 166 2,1 4 117 35 82 73 9 29,9	3 1 4,1 6,1 2 2 2 117 71 46 44 2 60,7	n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a	f.e. f.e. f.e. f.e. f.e. f.e. f.e. f.e.
References	4 9 21 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a	0 0 9 1 1 17 87 30 26 4 74,4	0 0 1 0 1 117 106 11 9 2 90.6	4 5.1 13 1 3 117 49 68 67 1 41,9	0 0 0 0 0 117 117 0 0 0 100	4 5,1 8 2,1 3,1 117 41 76 65 11 35	3 6.2 16 2.1 4 117 35 82 73 9 29,9	1 4,1 6,1 2 2 117 71 46 44 2 60,7	n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a	f.e.f.a
Set operations  Standard functions  Take/Skip  Type casts  O  UNIQ Implementation total:  Performed  Passed  O  Passed  O  Properly  Asserted  Color bar  Units:  f/a  #  count %  perce  Test name  CRUD Performance:  Fetch  O  Standard functions  O  O  O  Type casts  O  O  O  Passed  O  Passed  O  Properly  O  Asserted  O  Color bar  Units:  F/a  Count	9 21 5 5 5 117 117 117 117 110 100	n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a	0 9 1 1 17 87 30 26 4 74,4	0 1 0 1 117 106 111 9 2 90.6	5,1 13 1 3 117 49 68 67 1 41,9	0 0 0 0 117 117 0 0 0 100	5,1 8 2,1 3,1 117 41 76 65 51 11 35	6,2 16 2,1 4 117 35 82 73 9 29,9	4,1 6,1 2 2 117 71 46 44 2 60,7	n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a	f.e.f.a.f.a.f.a.f.a.f.a.f.a.f.a.f.a.f.a.
Standard functions	21 5 5 5 1117 117 117 117 117 100 count of faile t	n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a	9 1 1 117 87 30 26 4 74,4	1 0 1 117 106 111 9 2 90,6 ests failed wi	13 1 3 117 49 68 67 1 41,9	0 0 0 117 117 0 0 0 100	8 2,1 3,1 117 41 76 65 11 35	16 2,1 4 117 35 82 73 9 29,9	6,1 2 2 117 71 46 44 2 60,7	n/a n/a n/a n/a n/a n/a n/a n/a n/a	f.,c f.e f.e f.e f.e f.e f.e f.e g.e g.e g.e g.e g.e g.e g.e g.e g.e g
Take/Skip 0 Type casts 0 Type casts 0 Type casts 0 Type casts 0  Performed 0 Passed 0 Failed 0 Properly 0 Score 0  Color bar  Units:  f/a total # count % perce  CRUD Performance: Fetch 0 Single Operation:	117 117 117 117 117 110 100	n/a n/a n/a n/a n/a n/a n/a n/a n/a	1 117 87 30 26 4 74,4	0 1 117 106 11 9 2 90.6	1 3 117 49 68 67 1 41,9	0 0 117 117 0 0 0 100	2,1 3,1 117 41 76 65 11 35	2,1 4 117 35 82 73 9 29,9	2 2 1117 71 46 44 2 60,7	n/a n/a n/a n/a n/a n/a n/a n/a	f,c f,z f,z f,z f f f f f f f f f S S S S S S S S S S
Type casts 0  LINQ Implementation total:  Performed 0 Passed 0 Failed 0 Properly 0 Asserted 0 Color bar  Units:  f/a total # count % perce  Test name  CRUD Performance: Fetch 0 Single Operation:	117 117 117 117 117 100 count of faile	n/a n/a n/a n/a n/a n/a n/a n/a n/a	1 117 87 30 26 4 74,4	1 117 106 11 9 2 90.6	117 49 68 67 1 41,9	117 117 0 0 0 100	3,1 117 41 76 65 11 35	4 117 35 82 73 9 29,9	2 117 71 46 44 2 60,7	n/a n/a n/a n/a n/a n/a n/a n/a n/a 1000 item	f,c
LINO Implementation total:  Performed 0 Passed 0 Failed 0 Properly 0 Asserted 0 Score 0  Color bar  Units:  f/a total # count % perce  CRUD Performance: Fetch 0 Single Operation:	117 117 117 117 117 100	n/a n/a n/a n/a n/a n/a	117 87 30 26 4 74,4	117 106 111 9 2 90.6	117 49 68 67 1 41,9	117 117 0 0 0 100	117 41 76 65 11 35	117 35 82 73 9 29,9	117 71 46 44 2 60,7	n/a n/a n/a n/a n/a n/a	######################################
Performed	117 117 117 117 100 count of faile t entage (% of	n/a n/a n/a n/a n/a	87 30 26 4 74,4 [, count of te	106 11 9 2 90.6	49 68 67 1 41,9	117 0 0 0 100	41 76 65 11 35	35 82 73 9 29,9	71 46 44 2 60,7	n/a n/a n/a n/a n/a n/a	######################################
Passed 0 Failed 0 Properly 0 Asserted 0 Score 0 Color bar  Units:  f/a total of the count of the	117 117 117 117 100 count of faile t entage (% of	n/a n/a n/a n/a n/a	87 30 26 4 74,4 [, count of te	106 11 9 2 90.6	49 68 67 1 41,9	117 0 0 0 100	41 76 65 11 35	35 82 73 9 29,9	71 46 44 2 60,7	n/a n/a n/a n/a n/a n/a	######################################
Failed 0 Properly 0 Asserted 0 Score 0 Color bar  Units:  f/a total  # count % perce	117 117 117 100 ccount of faile tentage (% of	n/a n/a n/a n/a n/a	30 26 4 74,4 [, count of te	11 9 2 90.6	68 67 1 41,9	0 0 0 100	76 65 11 35 er (0 is ideal	82 73 9 29,9	46 44 2 60,7	n/a n/a n/a n/a n/a	######################################
Properly	117 117 100 count of faile t entage (% of	n/a n/a n/a n/a	26 4 74,4 [, count of te	9 2 90,6 ests failed wi	67 1 41,9	0 0 100	65 11 35 er (0 is ideal	73 9 29,9	44 2 60,7	n/a n/a n/a	######################################
Asserted 0 Score 0 Color bar Units:  f/a total with the count with	count of faile t entage (% of	n/a n/a	4 74,4 [, count of te	90,6 ests failed wi	1 41,9 th assertion	0 100	11 35 er (0 is ideal	9 29,9	2 60,7	n/a n/a	# % Best resul
Score 0  Color bar  Units:  f/a total a grade	count of faile t entage (% of	n/a ed tests passed	74,4 [, count of te tests), more i	90,6 ests failed wi	41,9 th assertion	100	35 er (0 is ideal	29,9	60,7	n/a	% Best resul
Units:  f/a total  # count % perce	count of faild t entage (% of	ed tests passed	[, count of te tests), more i	ests failed wi	th assertion	], less is bette	er (0 is ideal	)		1000 item	Best resul
Units:  f/a total # count % perce  Test name CRUD Performance: Fetch 0 Single Operation:	t entage (% of	passed	tests), more i	is better					inAccess	1000 item	n sequence
f/a total # count # count % perce	t entage (% of	passed	tests), more i	is better					inAccess		
f/a total # count # count % perce	t entage (% of	passed	tests), more i	is better					inAccess		
# count % perce	t entage (% of	passed	tests), more i	is better					nAccess		
We perce	entage (% of				oolkit	Objects.Net	paads	ernate	inAccess		
Test name CRUD Performance: Fetch Osingle Operation:					oolkit	Objects.Net	peeds	ernate	inAccess		
CRUD Performance: Fetch 0 Single Operation:	Maximum	qıClient	tity Framework	JO to SOL	oolkit	Objects.Net	peed	ernate	inAccess		
CRUD Performance: Fetch 0 Single Operation:	Maximum	qlClient	tity Framework	VQ to SQL	oolkit	Objects.Net	peeds				
CRUD Performance: Fetch 0 Single Operation:											Unit
Single Operation:											
	1	8 738	4634	9280	13001	9433	10444	7289	6611	8765	op/s
Create Instance 0											
		0 688	4566	3670	11832	7441	4851	3741	9848	4167	op/s
Update Instance 0		5 379	3898	1493	11507	9948	4955	871	9609	4099	op/s
Remove Instance 0		6 281	5955	1670	12047	10785	4776	1440	10936	4354	op/s
CUD Average 0	1	3 635	4641	1942	11777	9147	4859	1421	9959	4105	op/s
Multiple Operations:  Create Instance  0	2	21 779	7915	4879	22748	14988	12649	20587	10197	4010	op/s
Update Instance 0		64 662	6199	1687	64451	33320	27537	17259	15497	4154	op/s
Remove Instance 0		24 219	9365	1841	79514	42499	26199	18551	24022	4472	op/s
CUD Average 0		9 219	6997	2232	41583	24729	19538	18623	14579	4167	op/s
Data Access Performance:											
Query: LINQ Query 0		n/a	450	835	8749	1559	1290	1156	4168	351	queries/s
Compiled LINQ Query 0		n/a	6501	9114	13222	8046	1290	1156	4168	351	queries/s
Native Query 0		8 745	9728	9114	17187	10335	10424	5494	6590	7312	queries/s
Paging (LINQ only):			N								
Get Small Page (10 items) 0		n/a	5009	7736	10625	6199	1105	907	3458	322	pages/s
Get Average Page (20 items) 0		n/a	4494	7014	9009	5051	1175	726	3130	298	pages/s
Get Large Page (50 items) 0		n/a	3445	5551	6132	3410	1043	564	2447	262	pages/s
Get Huge Page (100 items) 0 Materialization:		n/a	2493	4108	4732	2236	892	369	1803	208	pages/s
LINQ Materialize 0		n/a	257884	462149	451752	276556	390747	41555	279126	47665	objects/s
Native Materialize 0		6 161	476553	462149	752841	350029	437196	55515	343666	56430	objects/s
			1								
File sizes (in bytes):											
Original .cs + mapping files		n/a	58 188	15 521	9 631	8 275	14 762	32 008	61 621	n/a	bytes
Generated .cs files Runtime libraries (.dlls)		n/a n/a	126 774 2 879 448	92 043 684 032	1 224 704	0 3 126 272	32 121 354 304	2 210 816	31 190 3 999 232	n/a 280 064	bytes bytes
Number (unit)		11/4	2 017 440	004 032	1 224 /04	J 120 2/2	334 304	2210010	3 777 232	200 004	Dytes
Color bar											Best resul
Jnits:											
			ore is better								
	es per secon										
	s per second		s better per second, r	noro is hotte	ar .						

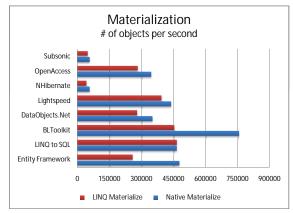
Result charts, page 1:

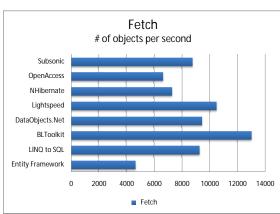


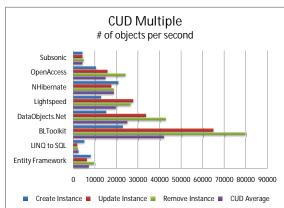
## Larger = better!

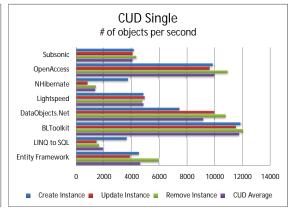












Cell: G46

Comment: Alex Yakunin:

Specialized API:

SqlQuery<T>.Insert(..., int batchSize, IEnumerable<T> sequence)

Cell: J46

Comment: Alex Yakunin:

Specialized API: ISessionFactory.OpenStatelessSession is used in this test.

Cell: G47

Comment: Alex Yakunin:

Specialized API:

SqlQuery<T>.Update(..., int batchSize, IEnumerable<T> sequence)

Cell: 14

Comment: Alex Yakunin:

 $Specialized \ API: IS ession Factory. Open Stateless Session \ is \ used \ in \ this \ test.$ 

Cell: G48

Comment: Alex Yakunin:

Specialized API:

SqlQuery<T>.Delete(..., int batchSize, IEnumerable<T> sequence)

Cell: J48

Comment: Alex Yakunin:

Specialized API: ISessionFactory.OpenStatelessSession is used in this test.

Cell: 15

Comment: Alex Yakunin:

Complied queries are not supported, result is copied from above cell.

Cell: J54

Comment: Alex Yakunin:

Complied queries are not supported, result is copied from above cell.

Cell: 154

Comment: Alex Yakunin:

Complied queries are not supported, result is copied from above cell.

Cell: F55

Comment: Alex Yakunin:

No native queries, result is copied from above cell.

Cell: F63

Comment: Alex Yakunin:

No native queries, result is copied from above cell.