



Smarten

Advanced Data Discovery

Powered by ElegantJ BI

Performance Data Sheet

Business Intelligence & Advanced Data Discovery

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Disclaimer

This document is intended to support administrators, technology managers or developers using and implementing Smarten. The business needs of each organization will vary and this document is expected to provide guidelines and not rules for making any decisions related to Smarten. The overall performance of Smarten depends on many factors, including but not limited to hardware configuration and network throughput.

Cubes with different data size - Single User						
Platform Specification						
CPU :	Intel(R) Xeon(R) CPU E5-2686 v4 @ 2.30GHz (16 cores)					
RAM :	128 GB					
Operating System :	Ubuntu 16.04.2 LTS					
Database Server :	Amazon Redshift					
20 Columns						
Record Size :	370 bytes					
Number Of Columns :	20 Total Columns					
Number Of Dimensions :	15 Columns					
Number Of Measures :	5 Columns					
Performance Time :		20 Columns				
	Operation / Data	5 Million	10 Million	20 Million	50 Million	100 Million
	UARS (Millions)	1.4 M	3.0 M	7 M	14.0 M	25.0 M
	Cube Creation (with Drill through data and all data operations on measures)	2 Mins	3.6 Mins	7.5 Mins	17 Mins	35 Mins
	Cube Creation (with Drill through data and one data operation on measures)	1.8 Mins	3.2 Mins	6.5 Mins	16 Mins	33 Mins
	Cube Creation (without Drill through data and all data operations on measures)	1.5 Mins	2.8 Mins	5.6 Mins	11.6 Mins	23 Mins
	Cube Creation (without Drill through data and one data operation on measures)	1.3 Mins	2.6 Mins	5 Mins	10.2 Mins	21 Mins
	Analysis Creation	1.0 sec	1.1 sec	1.3 sec	1.9 sec	2.0 sec
	Analysis Loading	0.8 sec	1.0 sec	1.2 sec	1.3 sec	1.6 sec
	Graph Creation	1.0 sec	1.1 sec	1.3 sec	1.9 sec	2.1 sec
	Graph Loading	0.9 sec	1.1 sec	1.2 sec	1.3 sec	1.7 sec
	Dashboard Loading	2.1 sec	2.3 sec	2.5 sec	2.8 sec	3.1 sec
	SmartenView Creation	1.2 sec	1.3 sec	1.5 sec	2.1 sec	2.5 sec
	SmartenView Loading	1.0 sec	1.1 sec	1.3 sec	1.5 sec	1.8 sec
40 Columns						
Record Size :	652 bytes					
Number Of Columns :	40 Total Columns					
Number Of Dimensions :	22 Columns					
Number Of Measures :	5 Columns					
Performance Time :		40 Columns				
	Operation / Data	5 Million	10 Million	20 Million	50 Million	100 Million
	UARS (Millions)	1.4 M	3.0 M	7 M	14.0 M	25.0 M

	Cube Creation (with Drill through data and all data operations on measures)	3.2 Mins	7 Mins	12.5 Mins	28 Mins	55 Mins
	Cube Creation (with Drill through data and one data operation on measures)	3 Mins	6.5 Mins	12 Mins	27 Mins	53 Mins
	Cube Creation (without Drill through data and all data operations on measures)	2.7 Mins	6 Mins	11 Mins	25 Mins	50 Mins
	Cube Creation (without Drill through data and one data operation on measures)	2.5 Mins	5.5 Mins	10 Mins	23 Mins	46 Mins
	Analysis Creation	1.2 sec	1.2 sec	1.3 sec	2.0 sec	2.4 sec
	Analysis Loading	0.8 sec	1.0 sec	1.1 sec	1.4 sec	1.6 sec
	Graph Creation	1.1 sec	1.2 sec	1.4 sec	1.9 sec	2.3 sec
	Graph Loading	0.9 sec	1.0 sec	1.1 sec	1.5 sec	1.7 sec
	Dashboard Loading	2.4 sec	2.8 sec	3.0 sec	3.2 sec	5.3 sec
	SmartenView Creation	1.3 sec	1.4 sec	1.6 sec	2.1 sec	2.6 sec
	SmartenViewLoading	1.1 sec	1.2 sec	1.3 sec	1.7 sec	1.9 sec
61 Columns						
Record Size :	850 Bytes					
Number Of Columns :	61 Total Columns					
Number Of Dimensions :	27 Columns					
Number Of Measures :	10 Columns					
Performance Time :		61 Columns				
	Operation / Data	5 Million	10 Million	20 Million	50 Million	100 Million
	UARS (Millions)	1.4 M	3.0 M	7 M	14.0 M	25.0 M
	Cube Creation (with Drill through data and all data operations on measures)	5 Mins	10 Mins	19 Mins	42 Mins	88 Mins
	Cube Creation (with Drill through data and one data operation on measures)	3.5 Mins	8 Mins	15 Mins	38 Mins	82 Mins
	Cube Creation (without Drill through data and all data operations on measures)	4 Mins	8 Mins	16 Mins	38 Mins	81 Mins
	Cube Creation (without Drill through data and one data operation on measures)	3 Mins	7.1 Mins	14 Mins	37 Mins	76 Mins
	Analysis Creation	1.2 sec	1.3 sec	1.4 sec	2.3 sec	2.9 sec
	Analysis Loading	0.8 sec	0.95 sec	1.1 sec	1.6 sec	1.8 sec

	Graph Creation	1.1 sec	1.2 sec	1.4 sec	2.3 sec	2.8 sec
	Graph Loading	0.8 sec	1.0 sec	1.2 sec	1.5 sec	1.7 sec
	Dashboard Loading	2.5 sec	2.8 sec	3.6 sec	4.5 sec	6.3 sec
	SmartenViewCreation	1.3 sec	1.4 sec	1.6 sec	2.5 sec	3.0 sec
	SmartenView Loading	1.0 sec	1.2 sec	1.4 sec	1.7 sec	1.9 sec

Datasets with different data size - Single User

Platform Specification						
CPU :	Intel(R) Xeon(R) CPU E5-2686 v4 @ 2.30GHz (16 cores)					
RAM :	128 GB					
Operating System :	Ubuntu 16.04.2 LTS					
Database Server :	Amazon Redshift					
20 Columns						
Record Size :	370 bytes					
Number Of Columns :	20 Total Columns					
Performance Time :		20 Columns				
	Operation / Data	5 Million	10 Million	20 Million	50 Million	100 Million
	Dataset Creation	1.3 Mins	2.5 Mins	4.6 Mins	9.8 Mins	19.3 Mins
	Analysis Creation	2.0 sec	2.2 sec	2.6 sec	3.8sec	4.0 sec
	Analysis Loading	1.6 sec	2.0 sec	2.4 sec	2.6 sec	3.2 sec
	Graph Creation	2.0 sec	2.2 sec	2.6 sec	3.8 sec	4.2s sec
	Graph Loading	1.8 sec	2.2 sec	2.4 sec	2.6 sec	3.4 sec
	Dashboard Loading	4.2 sec	4.6 sec	5.0 sec	5.6 sec	6.2 sec
	SmartenView Creation	2.4 sec	2.6 sec	3.0 sec	4.2 sec	5.0 sec
	SmartenView Loading	2.0 sec	2.2 sec	2.6 sec	3.0 sec	3.6 sec
61 Columns						
Record Size :	850 Bytes					
Number Of Columns :	61 Total Columns					
Performance Time :		61 Columns				
	Operation / Data	5 Million	10 Million	20 Million	50 Million	100 Million
	Dataset Creation	2.9 Mins	6.9 Mins	14 Mins	36 Mins	73 Mins
	Analysis Creation	2.4 sec	2.6 sec	2.8 sec	4.6 sec	5.8 sec
	Analysis Loading	1.6 sec	1.9 sec	2.2 sec	3.2 sec	3.6 sec
	Graph Creation	2.2 sec	2.4 sec	2.8 sec	4.6 sec	5.6 sec
	Graph Loading	1.6 sec	2.0 sec	2.4 sec	3.0 sec	3.4 sec
	Dashboard Loading	5.0 sec	5.6 sec	6.6 sec	8.4 sec	9.6 sec
	SmartenViewCreation	2.6 sec	2.8 sec	3.2 sec	5.0 sec	6.0 sec
	SmartenView Loading	2.0 sec	2.4 sec	2.8 sec	3.4 sec	3.8 sec

Concurrent Usage - Cubes						
Platform Specification						
CPU :	Intel(R) Xeon(R) CPU E5-2686 v4 @ 2.30GHz (16 cores)					
RAM :	128 GB					
Operating System :	Ubuntu 16.04.2 LTS					
Database Server :	Amazon Redshift					
5 Million Records						
Record Size :	850 Bytes					
Number Of Columns :	61 Columns					
Number Of Dimensions :	27 Columns					
Number Of Measures :	10 Columns					
UARS:	1.4 Million					
Performance Time :		5 Million Records				
	Operation / Data	1 User	5 Users	10 Users	25 Users	50 Users
	Analysis Creation	1.2 sec	1.4 sec	1.7 sec	2.7 sec	5.4 sec
	Analysis Loading	0.8 sec	1 sec	1.2 sec	1.9 sec	2.7 sec
	Graph Creation	1.1 sec	1.4 sec	1.8 sec	2.9 sec	6 sec
	Graph Loading	0.8 sec	1 sec	1.3 sec	2.2 sec	3.1 sec
	Dashboard Loading	2.5 sec	2.8 sec	4.5 sec	5.8 sec	8.2 sec
	SmartenView Creation	1.1 sec	1.6 sec	2.0 sec	3.1 sec	6.2 sec
	SmartenView Loading	1.0 sec	1.2 sec	1.5 sec	2.4 sec	3.3 sec
20 Million Records						
Record Size :	850 Bytes					
Number Of Columns :	61 Columns					
Number Of Dimensions :	27 Columns					
Number Of Measures :	10 Columns					
UARS:	7.0 Million					
Performance Time :		50 Million Records				
	Operation / Data	1 User	5 Users	10 Users	25 Users	50 Users
	Analysis Creation	1.4 sec	2.1 sec	2.5 sec	3.9 sec	7.2 sec
	Analysis Loading	1.1 sec	1.3 sec	1.6 sec	3.3 sec	4.7 sec
	Graph Creation	1.4 sec	2.2 sec	2.9 sec	4.2 sec	8.0 sec
	Graph Loading	1.2 sec	1.5 sec	1.7 sec	3.6 sec	4.0 sec
	Dashboard Loading	3.6 sec	5.5 sec	7.1 sec	10.2 sec	13 sec
	SmartenView Creation	1.6 sec	2.4 sec	3.1 sec	4.4 sec	8.3 sec
	SmartenView Loading	1.4 sec	1.7 sec	1.9 sec	3.8 sec	4.2 sec

Concurrent Usage - Datasets	
Platform Specification	
CPU :	Intel(R) Xeon(R) CPU E5-2686 v4 @ 2.30GHz (16 cores)
RAM :	128 GB
Operating System :	Ubuntu 16.04.2 LTS

Database Server :	Amazon Redshift					
5 Million Records						
Record Size :	850 Bytes					
Number Of Columns :	61 Columns					
Performance Time :		5 Million Records				
	Operation / Data	1 User	5 Users	10 Users	25 Users	50 Users
	Analysis Creation	1.8 sec	2.0 sec	2.4 sec	3.5 sec	6.1 sec
	Analysis Loading	1.6 sec	2.0 sec	2.4 sec	3.8 sec	5.4 sec
	Graph Creation	2.2 sec	2.8 sec	3.2 sec	4.4 sec	8.2 sec
	Graph Loading	1.4 sec	2 sec	2.2 sec	2.8 sec	3.6 sec
	Dashboard Loading	3.8 sec	4.4 sec	6.5 sec	8.8 sec	10.2 sec
	SmartenView Creation	2.0 sec	3.0 sec	4.0 sec	4.9 sec	8.2 sec
	SmartenView Loading	1.4 sec	2.3 sec	2.6 sec	2.9 sec	6.2 sec
20 Million Records						
Record Size :	850 Bytes					
Number Of Columns :	61 Columns					
Performance Time :		50 Million Records				
	Operation / Data	1 User	5 Users	10 Users	25 Users	50 Users
	Analysis Creation	2.8 sec	4.2 sec	5.0 sec	7.8 sec	11.2 sec
	Analysis Loading	2.2 sec	2.6 sec	3.0 sec	5.9 sec	8.1 sec
	Graph Creation	2.8 sec	3.8 sec	5.4 sec	7.4 sec	12.2 sec
	Graph Loading	2.1 sec	2.9 sec	3.4 sec	7.0 sec	7.9 sec
	Dashboard Loading	7.0 sec	10.1 sec	12.8 sec	15.2 sec	18.3 sec
	SmartenView Creation	2.4 sec	4.2 sec	5.9 sec	7.8 sec	13.2 sec
	SmartenView Loading	1.8 sec	3.1 sec	3.8 sec	5.8 sec	7.9 sec

Note:

- Performance is measured using specific computer systems and/or components and reflects the approximate performance of Smarten as measured by those tests.
- Any difference in system hardware, network or software design or configuration, may affect actual results.
- Performance may vary upon variation, non-performance or failure resulting out of third party software like operating systems, platforms, servers, tools, utilities and Programs.
- Performance result may vary upon data structure and database engine used.
- Past Results are not necessarily indicative of future results.
- Hypothetical or simulated performance results have certain inherent limitations.
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Product and Support Information

Find more information about ElegantJ BI-Smarten and its features at www.smartent.com

Support: support@smartent.com

Sales: sales@smartent.com

Feedback & Suggestions: support@smartent.com

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