

Sybase Statistics Demystified

7 Help Statistic



This page describes the content of the Help Statistic report. In its default operation, Columns and ColumnGroups Stats are reported at the table level, partition level Stats are not shown.

Table entries are useful in organising the Help Statistic report (although they do not appear in sysstatistics). They are shown here with a small amount of information relevant to the analysis (the columns are overloaded):

- nGrp number of indices
- Un number of unique indices
- nAct number of partitions
- rHist number of rows used to store the **table level** Histogram for all Columns
- nValue_Unique number of rows in the table

If there are partitioned tables in the report:

- rH_Tbl number of rows used to store the **table level** Histogram for all Columns
- rH_Ptn number of rows used to store the **partition level** Histograms for all Columns

The Histograms can be viewed via **Help Histogram**.

For detailed information in other areas, refer to the **Help Table**, **Help Index** or **Help Partition** reports.)

- ColumnGroup: Index the first Index in which the ColumnGroup is indexed (matches the leading columns). If there is more than one, the remainder are identified thus:
+[n] the ColumnGroup is indexed an additional n times (identifying possible duplicate indices)
- Column: Index the first Index in which the Column is indexed (matches the leading column, or is the only column). If there is more than one, the remainder are identified thus:
+[n] the Column is indexed an additional n times (identifying possible duplicate indices)
- (Index) the first Index in which the Column appears (it is not the leading column). If there is more than one, the remainder are identified thus:
+(n) the Column appears in n additional indices

Indicates that ASE reported that Stats for the identified Column or Column Group are **Missing** (if such is being captured). This treatment presents it in the context of the rest of the Stats, and thus allows considered evaluation, that would otherwise be isolated. nUpd is the no of occasions the Stats were found to be missing (low occurrences can be safely ignored). Missing count is particularly useless in the absence of used count for Stats, as there is nothing to compare against, but it does provide a flag for sites that do not administer Stats.

The number of **Requested & Actual Steps** (cells) in the Histogram (Refer to the **Help Histogram** report for full details.)

The number of ColumnGroups this Column appears in. ColumnGroups are readily identifiable from the few lines immediately above

The number of rows used to store the **table level** Histogram for the Column: must be at least 2

The **Statistics** for either a Column or a ColumnGroup, except for the Histogram per Column (which requires a vertical report)

Identifies whether the named Index is Unique

The number of times this Statistic has been updated, and datetime of the last update

Percentage the data in the Column has changed since Stats were last updated (constrained to 999 for sanity)

Very important single indicator, even for non-unique columns, once it is understood

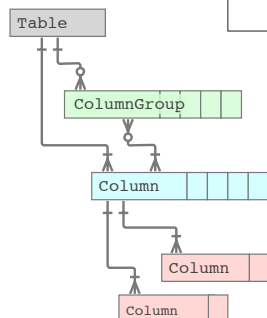
Distinct values for the Column or ColumnGroup determined by Stats

The main identifier in the report, each row represents either a Table, or a ColumnGroup Stat, or a Column Stat that has been stored. For ease of reference, the report is ordered as:

- Table
- ColumnGroups
- Columns

Table/ColumnGroup/Column	nGrp	Index/Notice	Un	M	nUpd	dUpdated	nReq	nAct	rHist	Delta	Density_Range	Density_Total	Uniqueness	nValue_Unique	Value_Range	Value_Total	
C_AccessSequence	[1]	-NoGrpStats-	[1]						4							1	
SubjectAreaCode	0	UC_Base	Un		3	10/01/06 23:10	20	2	2	0.00	1.0	1.0	1.0	1	1.0	1.0	
Sequence	0	(UC_Base)	Un		3	10/01/06 23:10	20	2	2	0.00	1.0	1.0	1.0	1	1.0	1.0	
SM_ComponentMetric	[1]	-NoStats-	[1]						0							122	
SM_ComponentValue	[2]	-NoStats-	[2]						16							5737	
Server,DateTime,Component,Metric		UC_PK	Un		3	11/08/26 02:01				0.0		0.0001743071	1.0		5737	0.0	0.0001743071
Server,Component,Metric,DateTime		U_ComponentMetric	Un		3	11/08/26 02:03				0.0		0.0001743071	1.0		5737	0.0	0.0001743071
Server,Component,Metric		U_ComponentMetric	Un		3	11/08/26 02:03				0.0		0.0092919949	0.01987		114	0.0	0.0087719298
Server,DateTime,Component		UC_PK	Un		3	11/08/26 02:01				0.0		0.0020003847	0.11713		672	0.0	0.0014880952
Server,DateTime		UC_PK	Un		3	11/08/26 02:01				0.0		0.0149656510	0.01673		96	0.0	0.0104166667
Server,Component		U_ComponentMetric	Un		3	11/08/26 02:03				0.0		0.1025204531	0.00209		12	0.0	0.0833333333
Component,Metric					3	11/08/26 02:09				0.0		0.0092919949	0.01987		114	0.0	0.0087719298
Server	6	UC_PK+[1]			3	11/08/26 02:03	20	2	2	0.00	0.0	1.0	0.00017		1	0.0	1.0
DateTime	4	(UC_PK)+(1)			3	11/08/26 01:50	100	192	6	0.00	0.0	0.0149656510	0.01673		96	0.0	0.0104166667
Component	6	(UC_PK)+(1)			3	11/08/26 02:09	300	24	2	0.00	0.0	0.1025204531	0.00209		12	0.0	0.0833333333
Metric	4	(UC_PK)+(1)			3	11/08/26 01:59	300	223	6	0.00	0.0001743071	0.0095720044	0.01952		112	0.0001743071	0.0089285714
SM_DeviceMetric	[1]	-NoStats-	[1]						0							45	
SM_DeviceValue	[1]	-NoStats-	[1]						10							5787	
Server,DateTime,DeviceType		UC_PK	Un		3	11/08/17 20:02				0.0		0.0086793215	0.02488		144	0.0	0.0069444444
Server,DateTime		UC_PK	Un		3	11/08/17 20:02				0.0		0.0209913480	0.00829		48	0.0	0.0208333333
Server,DateTime,DeviceType,Device,Metric		UC_PK	Un		3	11/08/17 20:02				0.0001728011		0.0001728011	1.0		5787	0.0001728011	0.0001728011
Server,DateTime,DeviceType,Device		UC_PK	Un		3	11/08/17 20:02				0.0		0.0016105111	0.19734		1142	0.0	0.0008756567
Server	4	UC_PK	Un		3	11/08/17 20:02	20	2	2	603.99	0.0	1.0	0.00017		1	0.0	1.0
DateTime	4	(UC_PK)	Un		3	11/08/17 20:02	20	26	2	603.99	0.0	0.0800381547	0.00225		13	0.0	0.0769230769
DeviceType	3	(UC_PK)	Un		3	11/08/17 20:02	20	4	2	603.99	0.0	0.5461325009	0.00052		3	0.0	0.3333333333
Device	2	(UC_PK)	Un		3	11/08/17 20:02	20	37	2	603.99	0.0130824373	0.1049543300	0.00397		23	0.0115207373	0.0434782609
Metric	1	(UC_PK)	Un		3	11/08/17 20:02	20	34	2	603.99	0.0191463682	0.0483437392	0.00588		34	0.0131720430	0.0294117647

For databases with partitioned tables, this column is split into rH_Tbl and rH_Ptn, the latter showing the number of rows used to store the **partition level** Histograms for the Column



Sybase Statistics Demystified

8 Help Statistic/Partition



As per the previous page, in its default execution, the **Help Statistic** report provides information on Stats at the table level. For partitioned tables, Sybase automatically stores ColumnGroup and Column Stats (including the Histograms) for each partition. For administrators who manage their Stats at the partition level, such a report is provided, the *additional* rows and columns are described here.

The concept is, the Column or ColumnGroup exists in each partition; therefore partition is *below* Column or ColumnGroup. This is consistent with the `optdiag` report.

Each row represents either a Table, or a ColumnGroup Stat, or Column Stat that has been stored. For ease of reference, the report is ordered as:

- Table
- ColumnGroup (table level)
- ColumnGroup.Partition
- ...
- Column (table level)
- Column.Partition
- ...

The number of rows used to store the **table level** Histogram for the Column: must be at least 2

For partitioned tables, the number of rows used to store the **partition level** Histograms for the Column

The row count for the table (table entry) or Partition (partition entry). This should be evaluated against `nValue_Unique` determined by Stats

	Table/ColumnGroup/Column.Parttn	nGrp	Index/Notice	Un	M	nUpd	dUpdated	nReq	nAct	rH_Tbl	rH_Ptn	Delta	Density_Range	Density_Total	Uniqueness	nRow	nValue_Unique	Value_Range	Value_Total
Table	TestBase_APL	[2]								63	224					2000010			
ColumnGroup	SecurityId,Name					3	11/08/22 00:00						0.0000005000	0.0000005000	1.0	2000010	2000010	0.0000005000	0.0000005000
Partition	SecurityId,Name.1536158					3	11/08/21 23:59						0.0000040256	0.0000040256	0.50000	496821	248410	0.0000040256	0.0000040256
Partition	SecurityId,Name.1169540319					3	11/08/21 23:59						0.0000040258	0.0000040258	0.50061	496195	248400	0.0000040258	0.0000040258
Partition	SecurityId,Name.1185540376					3	11/08/22 00:00						0.0000040258	0.0000040258	0.50071	496091	248400	0.0000040258	0.0000040258
Partition	SecurityId,Name.1201540433					3	11/08/22 00:00						0.0000039169	0.0000039169	0.49971	510903	255303	0.0000039169	0.0000039169
ColumnGroup	Name,SecurityId					3	11/08/21 23:58						0.0000005453	0.0000005453	0.91685	2000010	1833702	0.0000005453	0.0000005453
Partition	Name,SecurityId.1536158					3	11/08/21 23:55						0.0000020128	0.0000020128	1.0	496821	496821	0.0000020128	0.0000020128
Partition	Name,SecurityId.1169540319					3	11/08/21 23:56						0.0000020153	0.0000020153	1.0	496195	496195	0.0000020153	0.0000020153
Partition	Name,SecurityId.1185540376					3	11/08/21 23:57						0.0000020158	0.0000020158	1.0	496091	496091	0.0000020158	0.0000020158
Partition	Name,SecurityId.1201540433					3	11/08/21 23:58						0.0000019573	0.0000019573	1.0	510903	510903	0.0000019573	0.0000019573
Column	SecurityId	2	UC_SecurityId	Un		3	11/08/22 00:00	1000	1090	28	104	0.00	0.0000005000	0.0000005000	1.0	2000010	2000010	0.0000005000	0.0000005000
Partition	SecurityId.1536158					3	11/08/21 23:59	1000	1000		26	0.00	0.0000020128	0.0000020128	1.0	496821	496821	0.0000020128	0.0000020128
Partition	SecurityId.1169540319					3	11/08/21 23:59	1000	1000		26	0.00	0.0000020153	0.0000020153	1.0	496195	496195	0.0000020153	0.0000020153
Partition	SecurityId.1185540376					3	11/08/22 00:00	1000	1000		26	0.00	0.0000020158	0.0000020158	1.0	496091	496091	0.0000020158	0.0000020158
Partition	SecurityId.1201540433					3	11/08/22 00:00	1000	1000		26	0.00	0.0000019573	0.0000019573	1.0	510903	510903	0.0000019573	0.0000019573
Column	Name	2	U_Name	Un		3	11/08/21 23:58	1000	1163	35	120	0.00	0.0000005453	0.0000005453	0.91685	2000010	1833702	0.0000005453	0.0000005453
Partition	Name.1536158					3	11/08/21 23:55	1000	1000		30	0.00	0.0000020128	0.0000020128	1.0	496821	496821	0.0000020128	0.0000020128
Partition	Name.1169540319					3	11/08/21 23:56	1000	1000		30	0.00	0.0000020153	0.0000020153	1.0	496195	496195	0.0000020153	0.0000020153
Partition	Name.1185540376					3	11/08/21 23:57	1000	1000		30	0.00	0.0000020158	0.0000020158	1.0	496091	496091	0.0000020158	0.0000020158
Partition	Name.1201540433					3	11/08/21 23:58	1000	1000		30	0.00	0.0000019573	0.0000019573	1.0	510903	510903	0.0000019573	0.0000019573