

View column store storage details

Note:

You are not required to complete the processes, tasks, activities, or steps presented in this example. The various samples provided are for illustrative purposes only and it's likely that if you try this out you will encounter issues in your system.

To view column store storage details, perform the following steps

1. Run the following query to create the **vColumnStoreRowGroupStats**:

```
create view [wwi_perf].[vColumnStoreRowGroupStats]
as
with cte
as
(
select  tb.[name]                AS [logical_table_name]
,      rg.[row_group_id]        AS [row_group_id]
,      rg.[state]               AS [state]
,      rg.[state_desc]          AS [state_desc]
,      rg.[total_rows]          AS [total_rows]
,      rg.[trim_reason_desc]    AS trim_reason_desc
,      mp.[physical_name]       AS physical_name
FROM    sys.[schemas] sm
```

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```

JOIN    sys.[tables] tb          ON sm.[schema_id]      = tb.
[schema_id]
JOIN    sys.[pdw_table_mappings] mp ON tb.[object_id]    = mp.
[object_id]
JOIN    sys.[pdw_nodes_tables] nt  ON nt.[name]         = mp.
[physical_name]
JOIN    sys.[dm_pdw_nodes_db_column_store_row_group_physical_stats] rg ON
rg.[object_id]      = nt.[object_id]
AND
rg.[pdw_node_id]    = nt.[pdw_node_id]
AND rg.[distribution_id] = nt.
[distribution_id]
)
select *
from cte;

```

In this query we are using the **sys.dm_pdw_nodes_db_column_store_row_group_physical_stats** DMV which provides current rowgroup-level information about all of the columnstore indexes in the current database.

2. Explore the statistics of the columnstore for the **Sale_Partition01** table using the following query:

```

SELECT
    *
FROM
    [wwi_perf].[vColumnStoreRowGroupStats]
WHERE
    Logical_Table_Name = 'Sale_Partition01'

```

3. Explore the results of the query:

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Results

Messages

View

Table

Chart

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Export results

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Logical_table_name	Row_group_id	State	State_desc	Total_rows	Trim_reason_desc	Physical_name
Sale_Partition01	0	3	COMPRESSED	149822	BULKLOAD	Table_5a8866f1e9624ff49526ebf0251a91e7_23
Sale_Partition01	1	3	COMPRESSED	113318	BULKLOAD	Table_5a8866f1e9624ff49526ebf0251a91e7_25
Sale_Partition01	5	3	COMPRESSED	184746	AUTO_MERGE	Table_5a8866f1e9624ff49526ebf0251a91e7_26
Sale_Partition01	3	3	COMPRESSED	112351	BULKLOAD	Table_5a8866f1e9624ff49526ebf0251a91e7_27
Sale_Partition01	4	3	COMPRESSED	78682	REORG	Table_5a8866f1e9624ff49526ebf0251a91e7_28
Sale_Partition01	4	3	COMPRESSED	82663	REORG	Table_5a8866f1e9624ff49526ebf0251a91e7_30
Sale_Partition01	3	3	COMPRESSED	149717	BULKLOAD	Table_5a8866f1e9624ff49526ebf0251a91e7_31
Sale_Partition01	1	3	COMPRESSED	110873	BULKLOAD	Table_5a8866f1e9624ff49526ebf0251a91e7_33
Sale_Partition01	0	3	COMPRESSED	125922	BULKLOAD	Table_5a8866f1e9624ff49526ebf0251a91e7_34
Sale_Partition01	2	3	COMPRESSED	105846	BULKLOAD	Table_5a8866f1e9624ff49526ebf0251a91e7_35
Sale_Partition01	2	3	COMPRESSED	139054	BULKLOAD	Table_5a8866f1e9624ff49526ebf0251a91e7_36
Sale_Partition01	1	1	OPEN	78635	NULL	Table_5a8866f1e9624ff49526ebf0251a91e7_37
Sale_Partition01	0	3	COMPRESSED	119465	BULKLOAD	Table_5a8866f1e9624ff49526ebf0251a91e7_38
Sale_Partition01	4	3	COMPRESSED	94810	REORG	Table_5a8866f1e9624ff49526ebf0251a91e7_39

Column store row group statistics for Sale_Partition01

Browse through the results and get an overview of the rowgroup states. Notice the **COMPRESSED** and **OPEN** states of some of the row groups.

4. Explore the statistics of the columnstore for the **Sale_Hash_Ordered** table using the same query:

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```
SELECT
    *
FROM
    [wwi_perf].[vColumnStoreRowGroupStats]
WHERE
    Logical_Table_Name = 'Sale_Hash_Ordered'
```

5. Explore the results of the query:

Logical_table_name	Row_group_id	State	State_desc	Total_rows	Trim_reason_desc	Physical_name
Sale_Hash_Ordered	5	3	COMPRESSED	397731	BULKLOAD	Table_426afa17d3444d18b5173cbec7ae54a5_58
Sale_Hash_Ordered	5	3	COMPRESSED	454797	BULKLOAD	Table_426afa17d3444d18b5173cbec7ae54a5_59
Sale_Hash_Ordered	5	3	COMPRESSED	402974	BULKLOAD	Table_426afa17d3444d18b5173cbec7ae54a5_60
Sale_Hash_Ordered	4	3	COMPRESSED	1048576	NO_TRIM	Table_426afa17d3444d18b5173cbec7ae54a5_1
Sale_Hash_Ordered	4	3	COMPRESSED	1048576	NO_TRIM	Table_426afa17d3444d18b5173cbec7ae54a5_2
Sale_Hash_Ordered	4	3	COMPRESSED	1048576	NO_TRIM	Table_426afa17d3444d18b5173cbec7ae54a5_3
Sale_Hash_Ordered	4	3	COMPRESSED	1048576	NO_TRIM	Table_426afa17d3444d18b5173cbec7ae54a5_4
Sale_Hash_Ordered	4	3	COMPRESSED	1048576	NO_TRIM	Table_426afa17d3444d18b5173cbec7ae54a5_5
Sale_Hash_Ordered	4	3	COMPRESSED	1048576	NO_TRIM	Table_426afa17d3444d18b5173cbec7ae54a5_6
Sale_Hash_Ordered	4	3	COMPRESSED	1048576	NO_TRIM	Table_426afa17d3444d18b5173cbec7ae54a5_7
Sale_Hash_Ordered	4	3	COMPRESSED	1048576	NO_TRIM	Table_426afa17d3444d18b5173cbec7ae54a5_8
Sale_Hash_Ordered	4	3	COMPRESSED	1048576	NO_TRIM	Table_426afa17d3444d18b5173cbec7ae54a5_9
Sale_Hash_Ordered	4	3	COMPRESSED	1048576	NO_TRIM	Table_426afa17d3444d18b5173cbec7ae54a5_10

Column store row group statistics for Sale_Hash_Ordered

There is a significant difference in the rowgroup states from the previous one. This highlights one of the potential advantages of ordered CCIs.