# Oracle Hyperion Essbase ASO common Questions and Answers

# **Description:**

This document provides you some common question and their solution for Hyperion Essbase ASO cube. We provide complete Hyperion product suite training.

| History: |                             |          |                           |           |     |
|----------|-----------------------------|----------|---------------------------|-----------|-----|
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|          |                             |          |                           |           |     |

# Table of Contents.

- i) <u>Problem#1: How to find the size of an Aggregate Storage (ASO) Database in Essbase....1</u>
- ii) Problem#2: How do you set the ASO Pending Cache Size Limit......2

iii) <u>Problem#3: How To Automate The Aggregation Process On An Aggregate Storage (ASO)</u> <u>Database......4</u>

iv) <u>Problem#4: Unable to Compact an Aggregate Storage (ASO) Outline. May Get "Error compacting</u> <u>Outline......5</u>



## Problem#1: How to find the size of an Aggregate Storage (ASO) Database in Essbase? Solution: To find the size of an ASO database you can use the following MaxL command:

# Query database "DBName" get cube\_size info; query database asosamp.sample get cube\_size\_info;

This will display information about the input data size, aggregated data size, and number of queries tracked (when query tracking is enabled).

| Column Name               | Contents   |  |  |  |  |
|---------------------------|--|--|--|--|--|
| input_data_size_cells     | Number of input-level cells in the cube  |  |  |  |  |
| input_data_size_bytes     | Number of <mark>bytes used by th</mark> e input-level data<br>(approximate)  |  |  |  |  |
| aggregate_data_size_cells | Total number of cells in all aggregate views in the cube   |  |  |  |  |
| aggregate_data_size_bytes | Number of bytes used by the aggregate cells<br>(approximate)   |  |  |  |  |
| kernel_queries_tracked    | Number of kernel queries executed since the<br>last time query tracking was enabled or query<br>tracking information was reset |  |  |  |  |
| total_query_cost          | Total cost of all queries executed since the last<br>time query tracking information was reset                                 |  |  |  |  |
| query_tracking_enabled    | Values: True or False. Tells whether user<br>retrieval statistics are being collected for the<br>aggregate storage database    |  |  |  |  |

| ex. E:\Hyperion\products\Ess   | base\EssbaseClient\bin\essi                                    | msh.exe                                    |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|
| Essbase MaxL Shell -<br>Copyright (c) 2000,<br>All rights reserved.  | - Release 11.1.1 (ESI<br>2009, Oracle and/or<br>-              | 811.1.1.3.0B126)<br>its affiliates.        |  |  |  |  |  |  |  |
| MAXL> login admin password on i  |  |  |  |  |  |  |  |  |  |
| OK/INFO - 1051034 - Logging in user [admin@Native Directory].<br>OK/INFO - 1241001 - Logged in to Essbase. |  |  |  |  |  |  |  |  |  |
| MAXL> query database   | asosamp.sample get d   | ube_size_info;                             |  |  |  |  |  |  |  |
| input_data_size_cel<br>kernel_queries_trac<br>incremental_input_d  | input_data_size_byt<br>total_query_cost<br>incremental_aggrega | aggregate_data_size<br>query_tracking_enab | aggregate_data_size<br>incremental_data_sl |  |  |  |  |  |  |
| +  | •  |  |  |  |  |  |  |  |  |
| +<br>1249859<br>Ø<br>Ø   | +<br>6848512<br>Ø<br>Ø   | Ø<br>False                                 | 0<br>0                                     |  |  |  |  |  |  |
| OK∕INFO - 1241044 -  | OK/INFO - 1241044 - Records returned: [1].                     |  |  |  |  |  |  |  |  |
| MAXL>  |  |  | •  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

# Problem#2: How do you set the ASO Pending Cache Size Limit?

**Solution** You can set the ASO cache by doing the following from the Essbase Administration Services console:

To view or change the size of the aggregate storage cache:

1. Right-click on the ASO Application in the EAS Console and select Edit properties.

| Eile       Edit       View       Outline       Organize       Actions       Tools       Help <ul> <li>Enterprise View</li> <li>Administration Servers</li> <li>Essbase Servers</li> <li>Iocalhost</li> <li>Applications</li> <li>Asosamp</li> <li>Sar Start</li> <li>Sar Start</li> <li>Asosamp</li> <li>Asosamp</li> <li>Sar Start</li> <li>Cop y</li> <li>Refresh</li> <li>SalsRe</li> <li>Cop y</li> <li>Rename</li> <li>Sampi</li> <li>Delete</li> <li>Sampi</li> <li>Sampi</li></ul>   | Elle       Edit       View       Outline       Organize       Actions       Tools       Help <ul> <li>Enterprise View</li> <li>Madministration Servers</li> <li>Essbase Servers</li> <li>Iocalhost</li> <li>Applications</li> <li>ASOSamp</li> <li>Sat</li> <li>Sat</li> <li>Sat</li> <li>Sats</li> <li< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></li<></ul>   |              |              |  |   |  |                 |               |              |  |
|--|---|--------------|--------------|--|---|--|-----------------|---------------|--------------|--|
| Enterprise View Administration Servers Essbase Servers Icalhost Applications ASOsamp ASOsamp ASOsamp ASOsamp ASOsamp Sart Sart Sart SalsR SalsR Copy Refresh SalsR Copy Rename Sampli Delete Sampli  | <ul> <li>Enterprise View</li> <li>Administration Servers</li> <li>Essbase Servers</li> <li>Iocalhost</li> <li>Applications</li> <li>ASOSAMD</li> <li>Sar</li> <li>ASOSAMD</li> <li>Sar</li> <li>Sar</li> <li>ASOSAMD</li> <li>Start</li> <li>Stop</li> <li>Copy</li> <li>Refresh</li> <li>SalsRe</li> <li>SalsRe</li> <li>SalsRe</li> <li>Sampl</li> <li>Sam</li></ul> | <u>F</u> ile | <u>E</u> dit | <u>V</u> iew                           | 0 <u>u</u> tline  | Organize   | <u>A</u> ctions | <u>T</u> ools | <u>H</u> elp |  |
| Image: Start | Image: Assorse intervention of the second                                       | - 4          | - D          | erprise<br>Adminis<br>Essbase<br>Dioca | View<br>stration Se<br>e Servers<br>Ilhost<br>Application                         | rvers<br>15  |                 |               |              |  |
|  | Create database     Create database     View     View     Generate log chart     Business Rules     Smart Search Int     User/group access  |              |              |  | + G Sar<br>ASOSN<br>Demo<br>DMDer<br>SalesR<br>SalsRe<br>Sampe<br>Sampe<br>Sampli | Start<br>Stop<br>Refresh<br>Status for<br>Copy<br>Rename<br>Delete | all databa      | ses           |              |  |

2. In the Application Properties window, select the General tab.



3. Next to the Pending cache size limit node, enter a value, in megabytes, for the size of the cache.

| Application Properties [localhost.ASOsamp]   |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|
| Application:                                 |  |  |  |  |  |  |  |  |  |  |
| [localhost.ASOsamp]                          |  |  |  |  |  |  |  |  |  |  |
| General Statistics Tablespaces               |  |  |  |  |  |  |  |  |  |  |
| ⊐ General                                    |  |  |  |  |  |  |  |  |  |  |
| Description <u>Click here to edit</u>        |  |  |  |  |  |  |  |  |  |  |
| ∃ Startup                                    |  |  |  |  |  |  |  |  |  |  |
| Allow users to start application             |  |  |  |  |  |  |  |  |  |  |
| Start application when Essbase Server starts |  |  |  |  |  |  |  |  |  |  |
| Security                                     |  |  |  |  |  |  |  |  |  |  |
| Allow commands                               |  |  |  |  |  |  |  |  |  |  |
| Allow connects                               |  |  |  |  |  |  |  |  |  |  |
| Allow updates                                |  |  |  |  |  |  |  |  |  |  |
| Enable security                              |  |  |  |  |  |  |  |  |  |  |
| Minimum access level <u>None</u>             |  |  |  |  |  |  |  |  |  |  |
| Pending cache size limit (MB) 39             |  |  |  |  |  |  |  |  |  |  |
| Unicode mode                                 |  |  |  |  |  |  |  |  |  |  |

#### 4. Click Apply.

The cache setting takes effect after the application is restarted.

The Aggregate storage cache facilitates memory usage during data loads, aggregations, and retrievals.

The default cache size is 32 MB. You can use the size of input-level data to determine when to increase the maximum size for the cache.

A 32 MB cache setting supports a database with approximately 2 GB of input-level data. If the input-level data size is greater than 2 GB by some factor, the aggregate storage cache can be increased by the square root of that factor. For example, if the input-level data size is 3 GB (which is 2 GB \* 1.5), multiply the aggregate storage cache size of 32 MB by 1.22 (which is approximately the square root of 1.5), and set the aggregate cache size to the result: 39.04 MB.

Do not increase the maximum size of the aggregate storage cache beyond what is needed.

Problem#3: How to Automate The Aggregation Process On An Aggregate Storage (ASO) Database? Solution You can use a MaxL Script to automate the aggregation process.

An Example of the syntax is:

MAXL> alter application ASOSamp load database ASOSamp.Sample;

LOGIN "user" identified by "password" on "server"; alter system load application "App1"; alter application "App1" load database "Db1"; execute aggregate process on database "App1"."Db1"; EXIT;

MAXL> login admin password on ServerName; OK/INFO - 1051034 - Logging in user [admin@Native Directory]. OK/INFO - 1241001 - Logged in to Essbase.

MAXL> alter system load application ASOSamp; OK/INFO - 1056090 - System altered.

MAXL> alter application ASOSamp load database Sample; OK/INFO - 1056013 - Application ASOSamp altered.

MAXL> execute aggregate process on database ASOSamp.Sample;

 MAXL> execute aggregate process on database ASOSamp.Sample; OK/INFO - 1270045 - Successfully built [23] new aggregate views.
 Elapsed time [8.69] sec.
 OK/INFO - 1243014 - Aggregates processed on database ASOSamp.Sample.

MAXL> spool off;

# Problem#4: Unable to Compact an Aggregate Storage (ASO) Outline. May Get "Error compacting Outline

When deleting members from an ASO outline and restructuring the outline the outline file size grows. When trying to compact the outline using Essbase Administration Services (EAS) or MaxL, the outline does not compact completely.

You have tried to compact the outline by doing the following:

- 1. Using EAS to compact the outline, by right clicking on the outline and select Compact.
- 2. Using Maxl to compact the outline, by using the following command:

alter database appname.dbname compact outline;

| 🚾 E:\Hyperion\products\Essbase\EssbaseClient\bin\essmsh.exe   |
|---|
| OK/INFO - 1051034 - Logging in user [admin@Native Directory].<br>OK/INFO - 1241001 - Logged in to Essbase.  |
| NAXL) alter database ASOsamp.Sample compact outline;  |
| WARNING - 1250060 - Outline file is of older version,migration recommended.<br>OK/INFO - 1019017 - Reading Paraneters For Database [Drxxxxxx].<br>OK/INFO - 1007043 - Declared Dimension Sizes = [9 5 46 4 5 6 13 7 38 259 16904                                |
| 08/1870 - 1007042 - Actual Dimension Sizes = [7 4 43 4 5 6 13 7 32 257 10036 20<br>1 8 206 1 ].   |
| OK/INFO - 1200551 - Allocated TRIGMAXMEMSIZE: [4096] Bytes<br>OK/INFO - 1019010 - Writing Application Definition For [ASOsamp].<br>OK/INFO - 1019011 - Writing Database Definition For [Sample].<br>OK/INFO - 1019022 - Writing Database Mapping For [ASOsamp]. |
| OK/INFO - 1007120 - Loading New Outline for Database [Sample] Succeeded.<br>OK/INFO - 1024033 - Missing Database Config File [D:\Hyperion\user_projects\epm<br>system1\EssbaseServer\essbaseserver1\APP\ASOsamp\Sample\Sample.cfg], Query loggi                 |
| OK/INFO - 1007067 - Total Restructure Elapsed Time : [10.687] seconds.<br>OK/INFO - 1013344 - Outline for database [Sample] has been compacted by User [a<br>dmin@Native Directory].<br>OK/INFO - 1013273 - Database ASOsamp.Sample altered.                    |
| NAXL)   |

You may also see the following error if the outline was built on a Windows machine and then saved onto a Unix Essbase Server:

"Error compacting Outline Paging File //Hyperion/AnalyticServices/app/xxx/xxx/xxx.otl. Compacted and original outline byte order do not match. Please compact it where it was created."

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|--------------------------------------|--|---------------|
| Outline: Sample (Active Alias T      | able: Default)                                 |               |
| 👘 🛨 Measures Accounts Dynami         | c_Compression <6> (Lal                         | bel Only)     |
| 🗉 🗄 Years Dynamic <4> (Label         | Only)  |               |
| Time Time Multiple Hierarch          | iies Enabled <3≻ (Label ♦                      | Only)         |
| Transaction Type Stored #            | Default # <3>                                  |               |
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| Age Stored # Default # <3            | >  |               |
| Income Level Stored # Den            | auit # <6>                                     |               |
| Products Multiple Hierarchie         | s Enabled <2> (Label OF<br># Dofoult # (1) <2> | шу)           |
| All Merchandise Stored               | (+) <3>  |               |
|                                      |  |               |
| Digital Camer                        | Edit member properties                         |               |
| Camcorders                           | Generations                                    |               |
| Photo Printers                       | Levels   |               |
| Handhelds/PDAs     Hertable Audio (4 | Find members                                   |               |
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| +  Other (+) <1>                     |  |               |
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| ± Geography Stored # Defau           | Delete   |               |
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|                                      | Add sibling                                    |               |
|                                      | Rename   |               |
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| 2012 9:32:51 AM IST Succeeded        |  |               |
| sitorCommands.UnlockOutline          | Split view norizontally                        | ISTSuce       |
|                                      | Close view                                     |               |
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|                                      |  |               |

#### Possible Reason

When an outline is opened in paged mode, an open-close sequence does nothing and deleting member leaves their space still used. The "compact outline" only removes growth caused by migration of the outline from an older version to a newer version. For example, if during the

migration each member grew with 4 bytes (like a new field in the member record), the new record will never fit where it came from and the outline would double in size. This growth (only) is being compacted.

| <u>F</u> ile <u>E</u> dit <u>V</u> iew O <u>u</u> tline Or | ganize <u>A</u> ctions | 5 |
|--|------------------------|---|
| I ➡ Enterprise View  |                        |   |
| Administration Serve                                       | rs                     |   |
| 🗉 🗿 localhost  |                        |   |
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| 🖃 🔳 ASOsamp  |                        |   |
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| ± 🖳 Demo<br>± 🗐 DMDemo                                     | Compact                |   |

Solution As a workaround you can use the EsscmdQ utility posted on the Oracle Technology Network.

Go to the following site and download the ESSCMDQ utility, and "aso\_compact\_outline".pdf.
 Extract the utility to \$ARBORPATH/bin.

Below is an example of the ESSMCDQ script that you will need to create: Note: For the Writeotl command, you need to point to a different location than the dbname folder. This will avoid overwriting the existing outline.

Login "servername" "username" "password" ; Select "appname" "dbname" ; Openotl 3 1 "Null" "Null" "C:\Hyperion\products\Essbase\EssbaseServer\app\appname\dbname\dbname.otl" "y" "y" 0 ;

Writeotl o "3" 1 "Null" "Null" "C:\Hyperion\products\Essbase\EssbaseServer\app\appname\dbname.otl"; CloseOtl o; LogOut;

## Problem#5: DataCopy Command not supported in ASO cube.

Solution: Alternate way to copy the data from one combination to another combination. Open the Excel sheet and connect to the application and retrieve the combination of data. I am trying to copy the previous year combination of the data to current year combination of the data, here is the attached retrieval.

| I       I |                    |          |         |            |              |            |                           |            |              |            |            |
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| 1   |                    |          |         |            |              |            |                           |            |              | Original F | Price Paid |
| 2   | prev Year          | Jan      | No Sale | ATM        | No Promo     | '50,000-69 | 55 to 64 Y                | Boombox    | 20723        | 172.5      | 172.5      |
| 3   | prev Year          | Jan      | No Sale | ATM        | No Promo     | 70,000-99, | 55 to 64 Y                | Boombox    | 59484        | 159        | 159        |
| 4   |                    |          |         |            |              |            |                           |            |              |            |            |
| 5   | Current Year       | Jan      | No Sale | ATM        | No Promo     | '50,000-69 | 55 to 64 Y                | Boombox    | 20723        | #Missing   | #Missing   |
| 6   | Current Year       | Jan      | No Sale | ATM        | No Promo     | 70,000-99, | 55 to 64 Y                | Boombox    | 59484        | #Missing   | #Missing   |

## Rename Prev Year to Current Year and save the file in text format

| F |                    | 34          | 567     | -<br>-     |               |            |            |         | Bo            | ok2.txt - Mici | osoft Excel |
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| 2 | Current Year       | Jan         | No Sale | ATM        | No Promo      | '50,000-69 | 55 to 64 Y | Boombox | 20723         | 172.5          | 172.5       |
| 3 | Current Year       | Jan         | No Sale | ATM        | No Promo      | 70,000-99, | 55 to 64 Y | Boombox | 59484         | 159            | 159         |

# Login to the EAS Console right click on the database and click on Load data



After Loading the data you will get the same values for Prev Year and Current Year as well.

| F        |                                       | 344     | 366     | -          |                |            |            |         | Bo           | ok2.txt - Mic | rosoft Excel |
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| 2        | Current Year                          | Jan     | No Sale | ATM        | No Promo       | '50,000-69 | 55 to 64 Y | Boombox | 20723        | 172.5         | 172.5        |
| 3        | Current Year                          | Jan     | No Sale | ATM        | No Promo       | 70,000-99, | 55 to 64 Y | Boombox | 59484        | 159           | 159          |
| 4        |                                       |         |         |            |                |            |            |         |              |               |              |
| 5        | Prev Year                             | Jan     | No Sale | ATM        | No Promo       | '50,000-69 | 55 to 64 Y | Boombox | 20723        | 172.5         | 172.5        |
| 6        | Prev Year                             | Jan     | No Sale | ATM        | No Promo       | 70,000-99, | 55 to 64 Y | Boombox | 59484        | 159           | 159          |