* ~~Move DB to norachivelog if not already~~

~~alter system set "\_use\_realfree\_heap"=false scope=spfile;~~

~~alter system set "\_dbwr\_stall\_write\_detection\_interval" = 0;~~

~~alter system set audit\_trail=NONE scope=spfile;~~

~~shutdown immediate;~~

~~startup mount;~~

~~alter database flashback off;~~

~~ALTER DATABASE NO FORCE LOGGING;~~

~~alter database noarchivelog;~~

~~alter database open;~~

~~archive log list;~~

* Add quota to new TBS and change defaults

~~ALTER SYSTEM SET UNDO\_RETENTION = 28800;~~

~~ALTER USER HE\_CUSTOM QUOTA UNLIMITED ON INDX5;~~

~~ALTER USER HE\_CUSTOM QUOTA UNLIMITED ON DATA5~~

~~ALTER USER HE\_CUSTOM QUOTA UNLIMITED ON INDX4;~~

~~ALTER USER HE\_CUSTOM QUOTA UNLIMITED ON DATA4;~~

~~ALTER USER HE\_CUSTOM QUOTA UNLIMITED ON INDX3;~~

~~ALTER USER HE\_CUSTOM QUOTA UNLIMITED ON DATA3;~~

~~ALTER USER HE\_CUSTOM QUOTA UNLIMITED ON INDX2;~~

~~ALTER USER HE\_CUSTOM QUOTA UNLIMITED ON DATA2;~~

~~ALTER USER AEDBA~~

~~DEFAULT TABLESPACE DATA5~~

~~/~~

~~ALTER USER HEDBA~~

~~DEFAULT TABLESPACE DATA5~~

~~/~~

~~ALTER USER HE\_CUSTOM~~

~~DEFAULT TABLESPACE DATA5~~

~~/~~

~~ALTER USER PROD~~

~~DEFAULT TABLESPACE DATA5~~

~~/~~

* Resize Tablespaces overall targets. Do incremental resize at the beginning.

Resize DATA4 to 11 TB (add ~ 2 TB)

Resize INDX4 to 10 TB (add ~ 2 TB)

Resize DATA5 to 10 TB (add 10 TB)

Resize INDX5 to 10 TB (add ~ 9 TB)

Add datafiles to DATA and INDX if needed.

Add datafiles to TEMP if needed

**!! Table Move and LOB Move it using Source Tablespace space to temporary hold table. Make sure you have appropriate size in Source Table Tablespace to hold Data size and at least half table indexes size and in Target Tablespace of course. Also, during Table move it rebuilds their indexes in place so you need to have temp space in appropriate Index tablespace during table move. Space will be reclaimed.**

**Support query for references**

SELECT SUM(bytes)/1024/1024/1024 gb

FROM dba\_segments

WHERE (owner ='PROD' and

segment\_name IN

(

'BL\_CONSLTD\_CLM\_U\_ED\_SERV\_DEF'

)

)

OR (owner, segment\_name) IN (

SELECT owner, segment\_name

FROM dba\_lobs

WHERE owner = 'PROD'

AND table\_name IN

(

'BL\_CONSLTD\_CLM\_U\_ED\_SERV\_DEF'

)

)

select segment\_name Name, segment\_type Type, s.bytes/1024/1024/1024 GB, s.tablespace\_name TS

from dba\_segments s

where s.segment\_name IN

(

‘TRANSFOR\_RD\_SERV\_X\_SEARCH\_OSES’

)

and s.segment\_type = 'TABLE'

and s.owner = 'PROD'

union all

select segment\_name, segment\_type, s.bytes/1024/1024/1024 GB, s.tablespace\_name TS

from dba\_segments s,

dba\_indexes i

where s.segment\_name = i.index\_name

and s.owner = i.owner

and i.TABLESPACE\_NAME ='INDX'

and i.table\_name IN

(

‘TRANSFOR\_RD\_SERV\_X\_SEARCH\_OSES’

)

and s.segment\_type = 'INDEX'

and s.owner = 'PROD'

order by 3 desc;

-- FUNCTION BASED

select count(\*) from dba\_indexes where index\_type = 'FUNCTION-BASED NORMAL' and owner = 'PROD' and tablespace\_name = 'INDX';

-- Total TEMP free now

SELECT A.tablespace\_name tablespace, D.mb\_total,

SUM (A.used\_blocks \* D.block\_size) / 1024 / 1024 mb\_used,

D.mb\_total - SUM (A.used\_blocks \* D.block\_size) / 1024 / 1024 mb\_free

FROM v$sort\_segment A,

(

SELECT B.name, C.block\_size, SUM (C.bytes) / 1024 / 1024 mb\_total

FROM v$tablespace B, v$tempfile C

WHERE B.ts#= C.ts#

GROUP BY B.name, C.block\_size

) D

WHERE A.tablespace\_name = D.name

GROUP by A.tablespace\_name, D.mb\_total;

select SID,

SERIAL#,

OPNAME,

START\_TIME,

TOTALWORK,

sofar,

ROUND((sofar/totalwork) \* 100,2) pct\_done,

sysdate + TIME\_REMAINING/3600/24 end\_time, MESSAGE

from v$session\_longops

where

TOTALWORK != 0

AND SOFAR != TOTALWORK

;

select SID from v$session where username = 'SYS' and program like '%sqlplus%'

select count(\*) from dba\_segments where TABLESPACE\_NAME IN ('DATA','INDX');

select count(\*) from dba\_tables where TABLESPACE\_NAME IN ('DATA','INDX');

select count(\*) from dba\_indexes where TABLESPACE\_NAME IN ('DATA','INDX');

select count(\*) from dba\_segments where TABLESPACE\_NAME IN ('DATA');

select count(\*) from dba\_segments where TABLESPACE\_NAME IN ('INDX');

select table\_name, degree from dba\_tables where owner IN ('PROD','HE\_CUSTOM') and degree > 1

select index\_name, degree from dba\_indexes where owner IN ('PROD','HE\_CUSTOM') and degree > 1

~~cd $HOME/eb/tblmove~~

* ~~Open with 0\_index\_1\_rebuild to move indexes from DATA to INDX4. To free up DATA 1 TB (30 min/2 hours/45 min)~~

~~nohup 0\_index\_1\_rebuild.sh HEPYPRD > 0\_index\_1\_rebuild.stdout 2>&1 &~~

* ~~0\_index\_2\_rebuild to move large indexes from INDX to INDX4. To free up INDX 1300 GB (50 min/2 Hours 15 min/50 min)~~

~~nohup 0\_index\_2\_rebuild.sh HEPYPRD > 0\_index\_2\_rebuild.stdout 2>&1 &~~

* ~~0\_TELEPHONE (115 DATA and 155 INDX) (30 min/30 min with parallel 28/30 min)~~

~~nohup 0\_TELEPHONE\_move\_rebuild.sh HEPYPRD > 0\_TELEPHONE\_move\_rebuild.stdout 2>&1 &~~

* ~~UDT\_VALUE (227 DATA and 136 INDX) to DATA4/INDX4 (25 min/45 with 28/25 min)~~

~~nohup 0\_UDT\_VALUE\_move\_rebuild.sh HEPYPRD > 0\_UDT\_VALUE\_move\_rebuild.stdout 2>&1 &~~

* ~~OTHER\_ORGANIZATION\_NAME\_USED (136 DATA and 500 INDX) to DATA4/INDX4 (15 min table + 15 min indexes – 1 hour table with 12 side by side/ 35 min tables + indexes )~~

~~nohup 0\_OTHER\_ORGANIZATION\_NAME\_USED\_move\_rebuild.sh HEPYPRD > 0\_OTHER\_ORGANIZATION\_NAME\_USED\_move\_rebuild.stdout 2>&1 &~~

* *~~MBRSHP\_X\_OTHR\_ID\_NBR\_LST (110 DATA and 420 INDX) to DATA4/INDX4 (15 min table + 10 min indexes – 1 hour table with 12 side by side/ 30 min tables + indexes)~~*

~~nohup 0\_MBRSHP\_X\_OTHR\_ID\_NBR\_LST\_move\_rebuild.sh HEPYPRD > 0\_MBRSHP\_X\_OTHR\_ID\_NBR\_LST\_move\_rebuild.stdout 2>&1 &~~

* ~~POSTAL\_ADDRESS (230 DATA and 1250 INDX) ( 1 hour 45 min/4 hours with 28/1 hour 45 min)~~

~~nohup 0\_POSTAL\_ADDRESS\_move\_rebuild.sh HEPYPRD > 0\_POSTAL\_ADDRESS\_move\_rebuild.stdout 2>&1 &~~

* ~~SUPPLIER\_X\_SUPPLIER\_CLASS\_TYPE (209 DATA and 2000 INDX) (7 min/ 2 hours 30 min with 28/ 1 hour)~~

~~nohup 0\_SUPPLIER\_X\_SUPPLIER\_CLASS\_TYPE\_move\_rebuild.sh HEPYPRD > 0\_SUPPLIER\_X\_SUPPLIER\_CLASS\_TYPE\_move\_rebuild.stdout 2>&1 &~~

* ~~MESSAGE\_CODE (383 DATA and 101 INDX) to DATA4/INDX4 or DATA5/INDX5 (25 min/45 min with 28/25 min)~~

~~nohup 0\_MESSAGE\_CODE\_move\_rebuild.sh HEPYPRD > 0\_MESSAGE\_CODE\_move\_rebuild.stdout 2>&1 &~~

* *~~FEE\_DETAIL (370 DATA and 2000 INDX) (1 hour 30 min table + 1:30 Indexes/ 2 hours table with 28/ 3 hours tables + indexes)~~*

~~nohup 0\_FEE\_DETAIL\_move\_rebuild.sh HEPYPRD > 0\_FEE\_DETAIL\_move\_rebuild.stdout 2>&1 &~~

* ~~9\_move\_rebuild (small) (25 min with parallel 2 running side by side with some long batch/30 min with 28 stand alone)~~

~~nohup 9\_move\_rebuild.sh HEPYPRD > 9\_move\_rebuild.stdout 2>&1 &~~

* ~~8\_move\_rebuild (small) (30 min with parallel 4 running side by side with some long batch/ 30 min with 28 stand alone/30 min)~~

~~nohup 8\_move\_rebuild.sh HEPYPRD > 8\_move\_rebuild.stdout 2>&1 &~~

* ~~7\_move\_rebuild (small) (35 min with parallel 4 running side by side with some long batch/ 30 min with 28 stand alone/30 min)~~

~~nohup 7\_move\_rebuild.sh HEPYPRD > 7\_move\_rebuild.stdout 2>&1 &~~

* ~~6\_move\_rebuild (small) (30 min with parallel 4 running side by side with some long batch/30 min with 28 stand alone/30 min)~~

~~nohup 6\_move\_rebuild.sh HEPYPRD > 6\_move\_rebuild.stdout 2>&1 &~~

* ~~5\_move\_rebuild (small) –142 G / 329 G (50 min with parallel 4 running side by side with some long batch/30 min with 28 stand alone)~~

~~nohup 5\_move\_rebuild.sh HEPYPRD > 5\_move\_rebuild.stdout 2>&1 &~~

* ~~4\_move\_rebuild (mid) (2 hours with parallel 4 running side by side with some long batch/45 min with 28 stand alone/40 min)~~

~~nohup 4\_move\_rebuild.sh HEPYPRD > 4\_move\_rebuild.stdout 2>&1 &~~

* ***~~3\_move\_rebuild (mid) – 880 G tbl/2.1 TB (1.5 Hours only tables + 1 hour index/ 3 hours tables/1.5 hours only tables)~~***

~~!! Do tables first if need to move Data first. Comment out INDEX portion~~

~~!! First run move only tables. Comment out file. Move indexes after DATA drop~~

~~!! Once Data Tbls dropped and IndxXX increased. Comment out TABLE portion and uncomment INDEX.~~

~~nohup 3\_move\_rebuild.sh HEPYPRD > 3\_move\_rebuild..stdout 2>&1 &~~

* ~~2\_move\_rebuild (large) – 1 TB tbl/2.8 TB indx (4 Hours/10 hours 40 min with 28/5 hours)~~

~~nohup 2\_move\_rebuild.sh HEPYPRD > 2\_move\_rebuild.stdout 2>&1 &~~

* ~~1\_move\_rebuild (large) – 1.4 TB tbl/4 TB indx (5 Hours/15 Hours with 24/6 hours 30 min)~~

~~nohup 1\_move\_rebuild.sh HEPYPRD > 1\_move\_rebuild.stdout 2>&1 &~~

* ~~0\_move\_rebuild (large) – 624 G tbl/600 G Indx ( 5 hours 30 min/5 hours 45 min)~~

~~nohup 0\_move\_rebuild.sh HEPYPRD > 0\_move\_rebuild.stdout 2>&1 &~~

* ~~IDENTIFICATION\_NUMBER (HUGE) – 433 G/ 500 G (1 hour 20 min/ 5 hours with 24/1 hour 45 min)~~

~~!! Make sure have a least 1.5 TB free space in INDX5 because some existing index in that table rebuild.~~

~~nohup 12\_IDENTIFICATION\_NUMBER\_move\_rebuild.sh HEPYPRD > 12\_IDENTIFICATION\_NUMBER\_move\_rebuild.stdout 2>&1 &~~

* ~~OPS\_VALUE\_REFERENCE (HUGE) – 635 G/234 g (40 min/ 2 hours with 28/1 hour)~~

~~nohup 11\_OPS\_VALUE\_REFERENCE\_move\_rebuild.sh HEPYPRD > 11\_OPS\_VALUE\_REFERENCE\_move\_rebuild.stdout 2>&1 &~~

* ~~PRACTITIONER\_MEMBER (HUGE) – 660G/270 g ( 2 hours/5 hours with 30 / 2 hours 30 min)~~

~~nohup 10\_PRACTITIONER\_MEMBER\_move\_rebuild.sh HEPYPRD > 10\_PRACTITIONER\_MEMBER\_move\_rebuild.stdout 2>&1 &~~

* ~~HE\_CUSTOM tables (mid) (15 min/ 45 min with 28/30 min)~~

~~nohup 13\_HE\_CUSTOM\_move.sh HEPYPRD > 13\_HE\_CUSTOM\_move.stdout 2>&1 &~~

* BLOB Tables

~~nohup 14\_BLOB\_move\_rebuild.sh HEPYPRD > 14\_BLOB\_move\_rebuild.stdout 2>&1 & (10 min/10 min with 28/10min)~~

~~nohup 15\_BLOB\_BIG\_move\_rebuild.sh HEPYPRD > 15\_BLOB\_BIG\_move\_rebuild.stdout 2>&1 & (1 hour/ 1 .5 hour with 28/ 1 hour 20 min)~~

~~nohup 17\_BLOB\_BIG\_move\_rebuild.sh HEPYPRD > 17\_BLOB\_BIG\_move\_rebuild.stdout 2>&1 & (5 hours/12 hours with 28/6 hours)~~

**-- Empty PROD tables move**

~~@21\_move.sql~~

**--Empty PROD and HE\_CUSTOM tables move**

~~@22\_rebuild.sql~~

* Talk to Rach he may need to suspend GG replication
* **\*\*\* Scripts and steps that need to be executed while GG replication is off \*\*\***

~~@table\_move\_offline.sql~~

**!! for 16 First run move only LOB and indexes - make sure you have at least 2 TB free space in target BIG TBLS (3 hours)**

**!! Wait a bit until space reclaimed in target BIG TBLS before running next table Move or use different TBS**

**!! for 16 Second run move only Table - make sure you have at least 2 TB free space in target BIG TBLS (3 hours)**

**!! Monitor progress LOB progress by checking Free space on Target TBS.**

~~nohup 16\_BLOB\_BIG\_move\_rebuild.sh HEPYPRD > 16\_BLOB\_BIG\_move\_rebuild.stdout 2>&1 & ( 3 hours 15 min LOB + indexes)~~

~~nohup 16\_BLOB\_BIG\_move\_rebuild.sh HEPYPRD > 16\_BLOB\_BIG\_move\_rebuild.stdout 2>&1 & ( 1 min for table or combine with LOB)~~

~~nohup 18\_PERSON\_IND\_OFFLINE.sh HEPYPRD > 18\_PERSON\_IND\_OFFLINE.stdout 2>&1 & (25 min)~~

select trim(count(\*))

from dba\_indexes

where owner = 'PROD'

and STATUS <> 'VALID';

!! if needed

rebuild\_invalids.sql (45 min)

~~execute dbms\_stats.gather\_schema\_stats('SYS',degree=>24); (5 min)~~

~~nohup drop\_DATA\_tbls.sh HEPYPRD > drop\_DATA\_tbls.stdout 2>&1 & (25 min)~~

**~~\*\*\* Run following scripts only comment out Table Move portion and uncomment Index \*\*\*~~**

~~!!Resize INDxx if needed~~

~~nohup 3\_move\_rebuild.sh HEPYPRD > 3\_move\_rebuild.stdout 2>&1 &~~ **~~(2.1 TB)~~**~~/ 2 hours with 28/ 1 hour 10 min~~

**\*\*\*\* Finish up Remaining Index rebuilds. Left overs from dba\_segments and dba\_indexes \*\*\*\***

~~@19\_HE\_CUSTOM\_rebuild.sql~~ (10 min)

~~nohup 20\_PROD\_rebuild.sh HEPYPRD > 20\_PROD\_rebuild.stdout 2>&1 & (should be quick without FEE\_DETAIL indexes that were in dryrun run in this script)~~

~~@21\_rebuild.sql~~

~~execute dbms\_stats.gather\_schema\_stats('SYS',degree=>24);~~

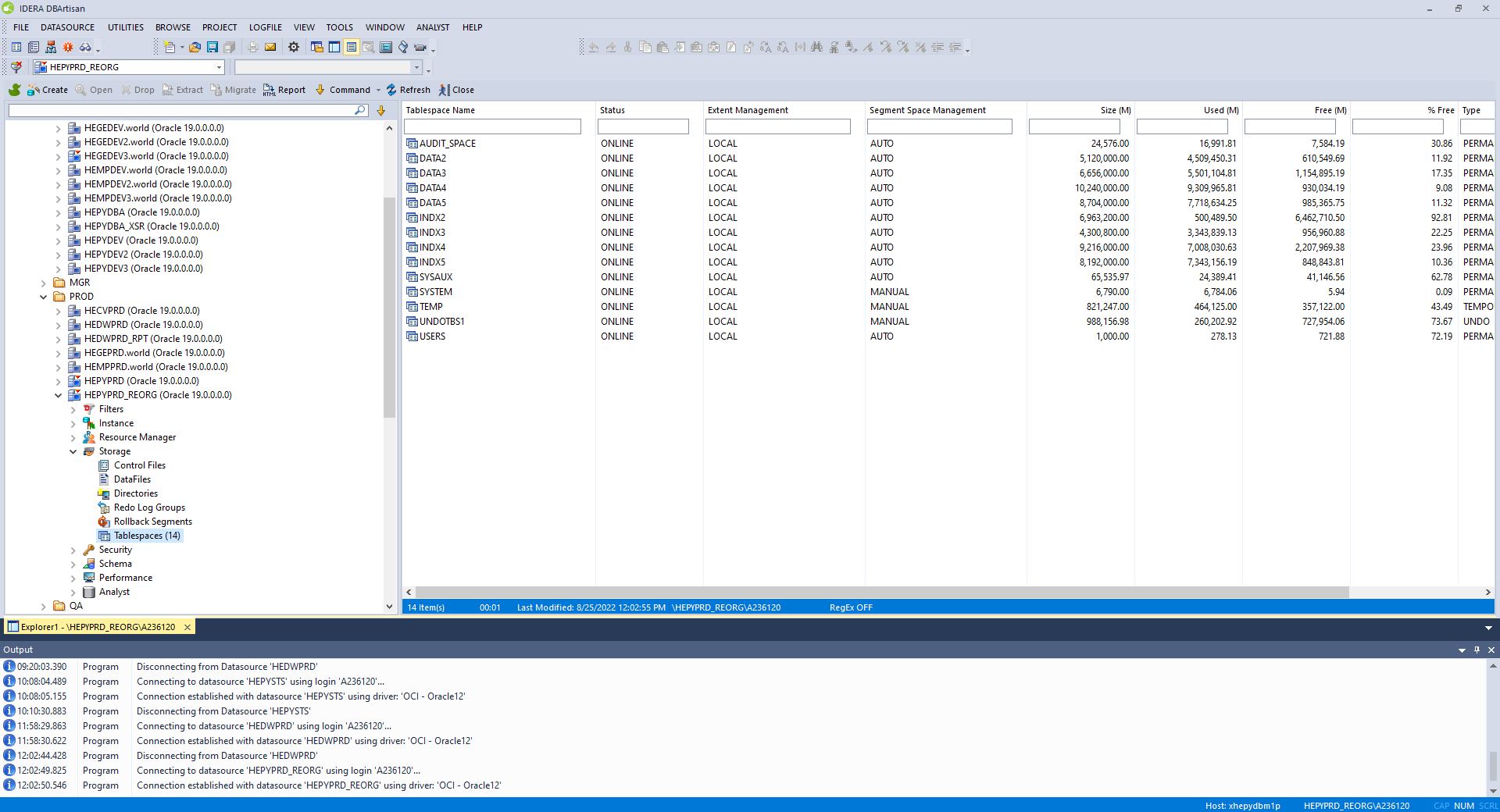
~~nohup drop\_INDX\_tbls.sh HEPYPRD > drop\_INDX\_tbls.stdout 2>&1 & (30 min)~~

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Schema stats \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

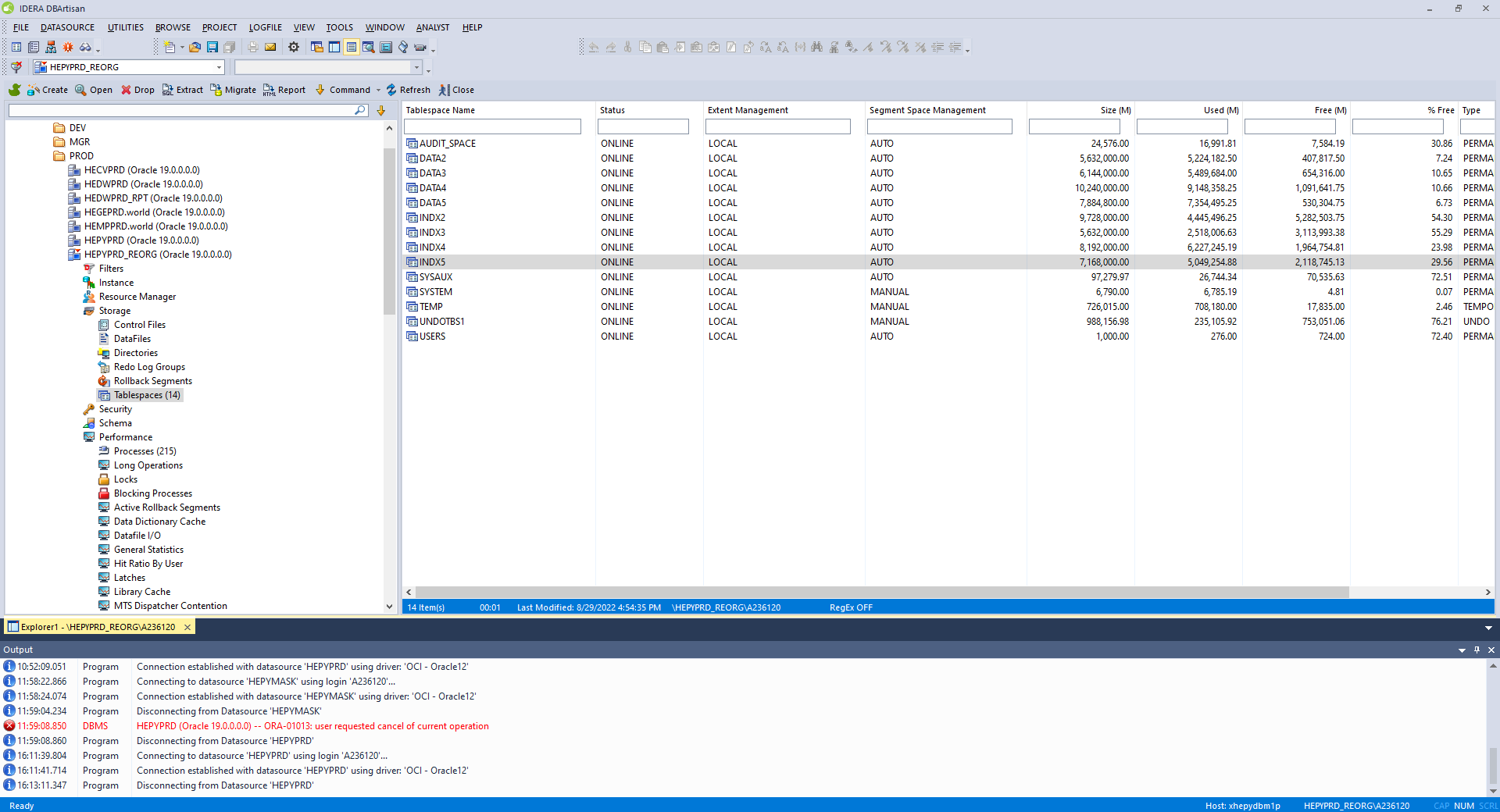
nohup gather\_PROD\_stats.sh HEPYPRD > gather\_PROD\_stats.stdout 2>&1 & (9 hours)

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* DONE \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

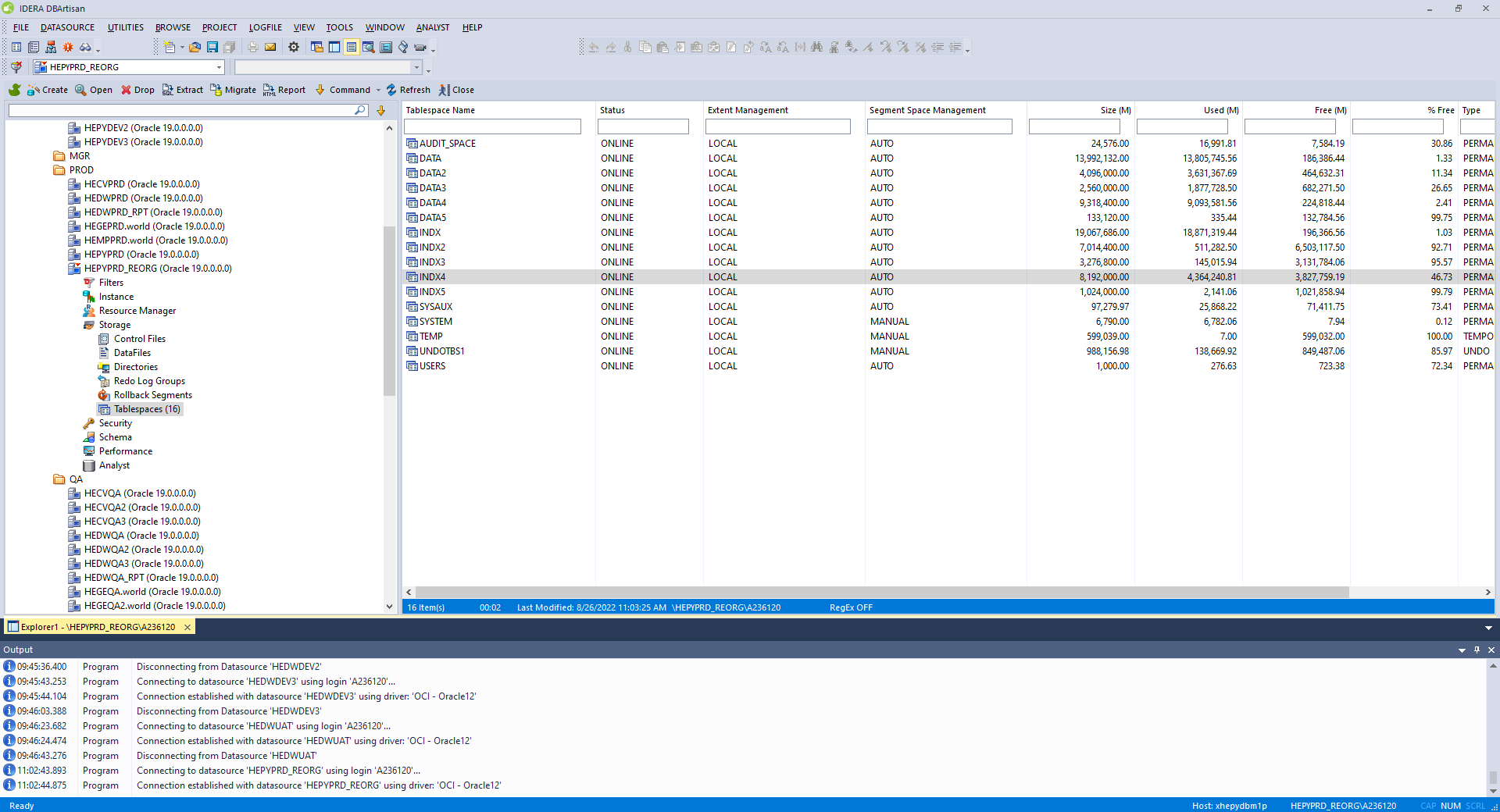
HEPYPRD\_REORG right after first attempt



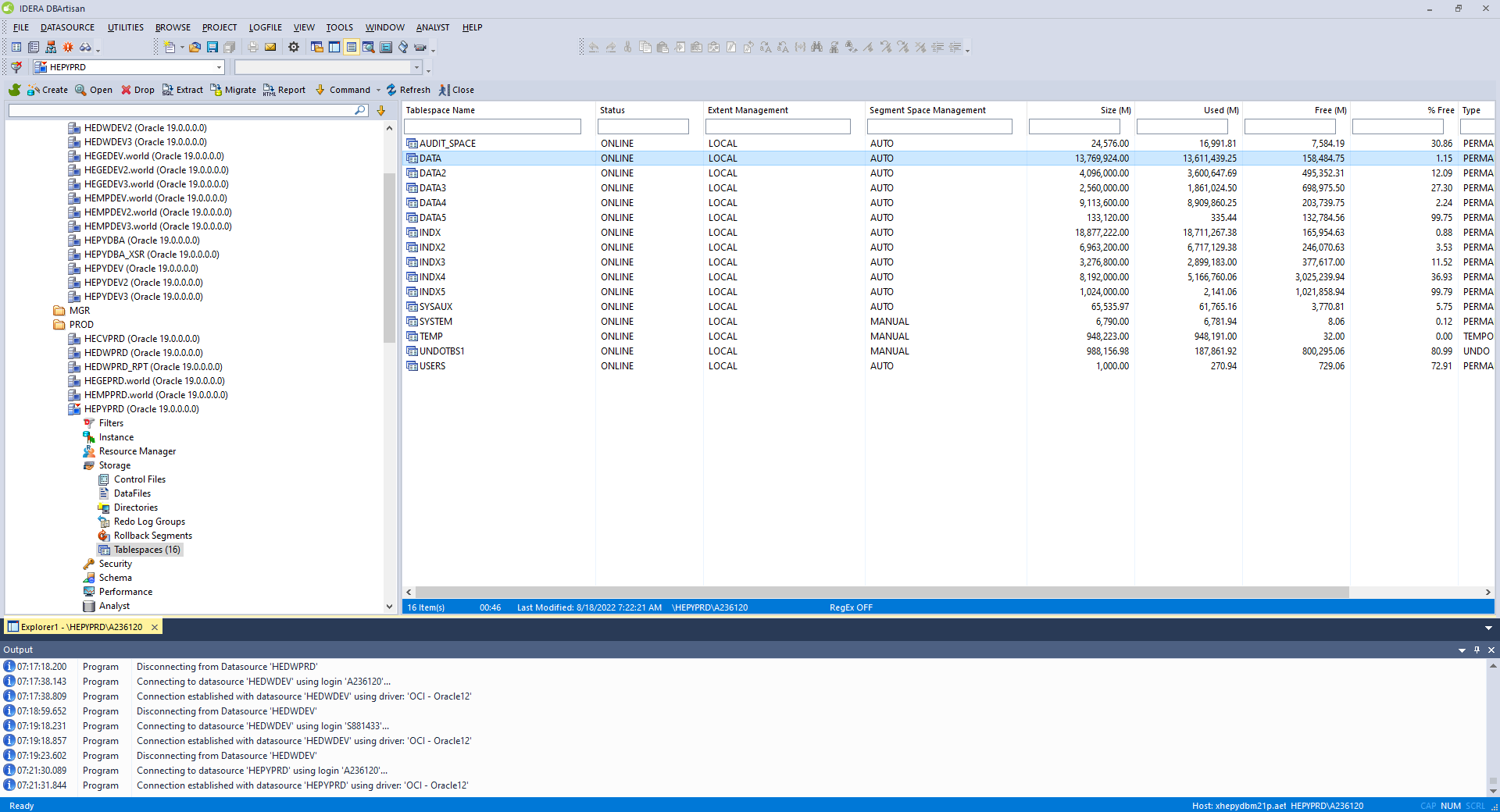
HEPYPRD\_REORG right after second attempt



HEPYPRD REORG after clone before second attempt reorg activity



HEPYPRD on m21p after first attempt clone



HEPYPRD on m1p after clone before reorg

**M1p ASM before reorg**