

**SIZING RESULTS IN GB**

Based on the selected table(s), the anticipated maximum requirement are

for Business Suite on HANA:

- Memory requirement	556,0
- Net data size on disk	388,4
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- Estimated memory requirement after data clean-up	490,5
- Estimated net data size on disk after data clean-up	391,8
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Other possible additional memory requirement:	
- for an upgrade shadow instance	132,5

Check the FAQ document attached to SAP Note 1872170 for explanations on how to interpret the sizing terms and calculations.

The sizing report has been executed on MaxDB with low or medium accuracy. Since sampling is not possible with MaxDB, we recommend choosing a sample size of 1.000.000.

Sizing report:	ZNEWHDB_SIZE
Version of the report:	80
Date of analysis:	04.03.2021
Selected sample size:	M
Data aging retention in days for technical objects:	015
Number of work processes used:	01
Duration of the analysis in seconds:	33.585
HANA version sized:	2.0

SID	CB2
NW release:	740 SP 23
Kernel version	753_REL
Operating system on AS	Linux GNU SLES-11
Type of analysed database:	ADABAS D
Database version:	7.9.09.010.2627
Unicode system:	Yes

Number of tables successfully analysed:	104.313
Number of tables with error:	0

MEMORY SIZING CALCULATION DETAILS	HANA SIZE IN GB
Column store data	225,0
+ Row store data	23,7
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= Anticipated memory requirement for the initial data	248,7
+ Cached Hybrid LOB (20%)	8,6
+ Work space	248,7
+ Fixed size for code, stack and other services	50,0
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= Anticipated initial memory requirement for HANA	556,0

DISK SIZING CALCULATION DETAILS	HANA SIZE IN GB
Column store data	225,0
+ Row store data	23,7
+ hybrid LOBs	43,1
+ Space required for merges	71,6
+ Metadata and statistics	25,0
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= Initial net data size on disk	388,4

DATA MODEL CHANGES AND CLEAN UP DETAILS	HANA SIZE IN GB
Anticipated memory requirement for the initial data	248,7
- Basis Data aged to disk	36,4
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= Anticipated memory requirement of data after clean-up	212,3
+ Cached Hybrid LOB (20%)	8,6
+ Cached data from aged partitions (20%)	7,3
+ work space	212,3
+ Fixed size for code, stack and other services	50,0
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= Anticipated total memory requirement after clean-up	490,5

DISK SIZING AFTER CLEAN-UP	HANA SIZE IN GB
Anticipated disk requirement for the data after clean-up	212,3
+ Data aged on disk (50% overhead)	54,6
+ hybrid LOBs	43,1

+ Space required for merges	56,7
+ Metadata and statistics	25,0
= Net data size on disk after clean-up	391,8

CLEAN UP CALCULATION DETAILS	HANA SIZE IN GB
Basis Data aged to disk: (Total: 36.4GB)	
CDPOS	22,2
BALDAT	4,2
SWWCNTP0	3,9
CDHDR	1,6
SWWLOGHIST	1,1
EDID4	0,8
SWPSTEPLOG	0,7
SWW_CONT	0,4
SWWWIHEAD	0,3
SWPNODELOG	0,3
EDIDS	0,3
BALHDR	0,2
SWP_NODEWI	0,1
SWPNODE	0,1
SWW_CONTOB	0,1

ESTIMATED REQUIREMENT FOR UPGRADE SHADOW INSTANCES	HANA SIZE IN GB
Estimated size of tables cloned to shadow instances	66,2
+ Estimated corresponding work space requirement	66,2
= Total memory requirement for shadow instances	132,5
= Total disk requirement for shadow instances	94,3

MEMORY SIZING FOR PERSISTENT MEMORY (NVRAM)	HANA SIZE IN GB
Column store data	225,0
= Anticipated initial requirement for the Persistent Memory	225,0
Row store data	23,7
+ Cached Hybrid LOB (20%)	8,6
+ Work space	248,7
+ Fixed size for code, stack and other services	50,0
= Anticipated initial requirement for the DRAM	331,0

Check SAP Note 2618154 for more information on Persistent Memory.

LARGEST COLUMN STORE TABLES	ESTIMATED HANA MEMORY SIZE IN GB	ESTIMATED RECORD COUNT
DBTABLOG	33,1	87.301.743
CDPOS	23,6	266.039.755
ZZSPLITA	14,9	177.243.375
FMGLFLEXA	8,8	131.884.026
BSEG	8,1	145.222.089
FMIFIIT	5,3	77.970.404
VBPA	5,0	166.531.546
FMIOI	5,0	80.873.938
COEP	4,9	108.013.907
SWWCNTP0	4,6	8.584.999
BALDAT	4,3	14.891.493
BSIS	3,7	66.788.100
GLPCA	3,7	41.177.720
KONV	3,5	103.065.631
VAPMA	3,2	41.395.449
FAGL_SPLINFO_VAL	3,0	90.366.038
VRPMA	3,0	41.408.818
BSAS	2,9	44.782.529
BSAD	2,7	39.176.408
ZSDT_RINT	2,5	20.549.861
VBRP	2,4	41.408.820
GLIDXA	2,1	48.736.214
VBAP	2,1	41.395.453
S570	2,1	29.949.348
S600	2,1	29.425.664
BKPF	2,0	42.293.728
CDHDR	1,9	48.285.256
FAGL_SPLINFO	1,9	45.182.823
S003	1,9	31.503.585
S006	1,9	31.493.341

LARGEST COLUMN STORE PRIMARY KEYS	PRIMARY KEY MEMORY SIZE IN GB	ENTIRE TABLE SIZE IN GB
CDPOS	14,3	23,6
ZZSPLITA	2,8	14,9
VBPA	2,6	5,0
FMGLFLEXA	2,5	8,8
BSEG	2,4	8,1
FMIOI	2,3	5,0
FMIFIIT	2,0	5,3
BSIS	2,0	3,7
VAPMA	1,9	3,2
FAGL_SPLINFO_VAL	1,8	3,0
DBTABLOG	1,8	33,1
VRPMA	1,8	3,0
KONV	1,7	3,5
COEP	1,6	4,9
BSAS	1,4	2,9
S570	1,4	2,1
S600	1,3	2,1
GLIDXA	1,2	2,1
BSAD	1,2	2,7
S003	1,2	1,9
S006	1,2	1,9
S001	1,1	1,8
CDHDR	1,0	1,9
VBFA	0,9	1,7
WBCROSSGT	0,9	1,5
FAGL_SPLINFO	0,8	1,9
FMZUOB	0,8	1,3
VAKPA	0,8	1,5
VRKPA	0,8	1,3
VBEP	0,7	1,4

LARGEST ROW STORE TABLES	ESTIMATED HANA MEMORY SIZE IN GB	ESTIMATED RECORD COUNT
D010TAB	7,7	53.063.301
ARFCSDATA	4,2	2.650.419
D010INC	3,3	17.665.577
DD03L	2,7	9.577.531
SEOCOMPODF	0,6	2.333.609
ARFCSSTATE	0,6	852.598
SMIMCONT1	0,4	901.401
TRFCQOUT	0,4	845.883
DD05S	0,2	1.673.798
DD04T	0,2	1.328.471
CLS_ASSIGNMENT	0,2	642.731
TBTCP	0,2	476.656
TBTCO	0,2	472.827
DYNPSOURCE	0,2	252.333
DDTYPES	0,1	1.372.397
DD08T	0,1	1.028.895
DD08L	0,1	792.901
DDPRS	0,1	692.226
DD03T	0,1	647.041
DD27S	0,1	640.189
DD04L	0,1	513.790
DDFTX	0,1	490.011
TST01	0,1	417.392
REPOLOAD	0,1	407.157
COVREF	0,1	313.753
WDY_CTLR_COMPO	0,1	246.202
APQD	0,1	199.561
VARI	0,1	172.659
O2PAGCON	0,1	85.064
VRSMODISRC	0,1	48.879

LARGEST COLUMN STORE TABLES WITH LOB	ESTIMATED LOB SIZE ON DISK	ESTIMATED RECORD COUNT
REPOSRC	12,8	4.728.806
ECTD_XML_STR	3,2	56.953
PSTXB	1,0	142.044
/STMC/CR_REPO2S	0,9	11.882
STXL	0,8	1.495.478
REPOTEXT	0,6	964.385
DBTABLOG	0,5	87.301.743
ECTD_DATA	0,3	98.914
WDR_ADP_CONST_MP	0,3	22.909
WDY_CONFIG_DATA	0,2	14.388
TFRT_BLOB	0,2	27
ECSCR_XML_STR	0,1	29.584

WDR_MIME_FILE	0,1	17.646
/STMC/CR_REPO2L	0,1	12.344
N2EXTLOAD	0,1	2.768
FINB_CONTENT_HIS	0,1	178
CTSFILECONTAINER	0,1	82

LARGEST ROW STORE TABLES WITH LOB	ESTIMATED LOB SIZE ON DISK	ESTIMATED RECORD COUNT
REPOLOAD	9,1	407.157
DYNPSOURCE	2,7	252.333
ENHOBJCONTRACT	2,4	1.131
FPLAYOUTT	1,8	7.259
DYNPLOAD	1,4	66.651
TST03	1,3	182.388
FPCONTEXT	0,6	4.406
ENHLOG	0,5	77.935
ENHHEADER	0,4	20.266
SWUOCONT1	0,4	17.748
WDY_CTRLR_COMPO	0,3	246.202
INDX_HIER	0,1	18.952
ENHSPOTHEADER	0,1	11.457
SFDG	0,1	4.790

LARGEST TABLES AFTER CLEAN-UP	ESTIMATED HANA MEMORY SIZE IN GB	STORE
DBTABLOG	33,1	CS
ZZSPLITA	14,9	CS
FMGLFLEXA	8,8	CS
BSEG	8,1	CS
D010TAB	7,7	RS
FMIFIIIT	5,3	CS
VBPA	5,0	CS
FMIOI	5,0	CS
COEP	4,9	CS
ARFCSDATA	4,2	RS
BSIS	3,7	CS
GLPCA	3,7	CS
KONV	3,5	CS
D010INC	3,3	RS
VAPMA	3,2	CS
FAGL_SPLINFO_VAL	3,0	CS
VRPMA	3,0	CS
BSAS	2,9	CS
BSAD	2,7	CS
DD03L	2,7	RS
ZSDT_RINT	2,5	CS
VBRP	2,4	CS
GLIDXA	2,1	CS
VBAP	2,1	CS
S570	2,1	CS
S600	2,1	CS
BKPF	2,0	CS
FAGL_SPLINFO	1,9	CS
S003	1,9	CS
S006	1,9	CS

LARGEST TABLES CLONED DURING UPGRADES	ESTIMATED HANA MEMORY SIZE IN GB	ESTIMATED RECORD COUNT
DBTABLOG	33,1	87.301.743
D010TAB	7,7	53.063.301
ARFCSDATA	4,2	2.650.419
D010INC	3,3	17.665.577
DD03L	2,7	9.577.531
WBCROSSGT	1,5	18.459.175
DOKTL	1,1	26.921.098
E071K	0,7	16.718.202
REPOSRC	0,7	4.728.806
SEOCOMPODF	0,6	2.333.609
ARFCSSTATE	0,6	852.598
SCPRSVALS	0,5	10.849.484
E071	0,4	14.357.552
SCPRVALS	0,4	8.705.344
SMIMCONT1	0,4	901.401
SEOSUBCOTX	0,3	4.943.775
RSMPTXTS	0,2	4.815.703
FUNCT	0,2	4.133.465
TADIR	0,2	3.942.122
FUPARAREF	0,2	3.669.787

SEOSUBCO	0,2	3.299.452
SEOSUBCODF	0,2	3.294.721
DD05S	0,2	1.673.798
DD04T	0,2	1.328.471
CLS_ASSIGNMENT	0,2	642.731
TBTCP	0,2	476.656
TBTCP	0,2	472.827
DYNPSOURCE	0,2	252.333
RIS_PROG_TADIR	0,1	4.321.211
SEOCMPOTX	0,1	3.336.769

SCALE OUT TABLE GROUP NAMES	ESTIMATED MEMORY SIZE BEFORE CLEANUP	ESTIMATED MEMORY SIZE AFTER CLEANUP
COL_TABLES_NOT_GROUPED	130,0	130,0
FI_DOCUMENT	47,3	47,3
SD_VBAK	30,3	30,3
BC_CHDO	25,5	1,6
BC_WORKITEM	8,8	1,7
BC_SBAL	4,5	0,1
BC_IDOC	1,3	0,3
OSTR	0,5	0,5
ACC_DOC	0,3	0,3
MM_EKKO	0,2	0,2
MM_MATDOC	0,1	0,1

LARGEST COLUMN STORE TABLES	ESTIMATED HANA MEMORY SIZE IN GB	SCALE OUT TABLE GROUP NAMES
DBTABLOG	33,1	
CDPOS	23,6	BC_CHDO
ZZSPLITA	14,9	
FMGLFLEXA	8,8	FI_DOCUMENT
BSEG	8,1	FI_DOCUMENT
FMIFIIT	5,3	
VBPA	5,0	SD_VBAK
FMIOI	5,0	
COEP	4,9	FI_DOCUMENT
SWWCNTPO	4,6	BC_WORKITEM
BALDAT	4,3	BC_SBAL
BSIS	3,7	FI_DOCUMENT
GLPCA	3,7	FI_DOCUMENT
KONV	3,5	SD_VBAK
VAPMA	3,2	SD_VBAK
FAGL_SPLINFO_VAL	3,0	FI_DOCUMENT
VRPMA	3,0	SD_VBAK
BSAS	2,9	FI_DOCUMENT
BSAD	2,7	FI_DOCUMENT
ZSDT_RINT	2,5	
VBRP	2,4	SD_VBAK
GLIDXA	2,1	
VBAP	2,1	SD_VBAK
S570	2,1	
S600	2,1	
BKPF	2,0	FI_DOCUMENT
CDHDR	1,9	BC_CHDO
FAGL_SPLINFO	1,9	FI_DOCUMENT
S003	1,9	
S006	1,9	

Check SAP Note 2408419 and 2428711 for more information about Scale-Out.

DETAILED INITIAL SIZING PER COMPONENT	MEMORY SIZE IN GB
Column Store tables:	119,2
- High cardinality:	5,0
- Med. cardinality:	3,5
- Low cardinality:	1,2
- Others:	109,4
Column Store keys:	105,8
- Primary keys:	80,6
- Row ID:	16,1
- Udiv:	2,2
- Secondary unique keys:	6,9
Row Store tables:	15,2
Row Store primary keys:	3,1
Row Store secondary keys:	5,4
LOB CS data stored on disk:	21,7
LOB RS data stored on disk:	21,5

Check SAP Note 1986747 for more information

LARGEST TABLES	AGING OBJECT	LAST AGING RUN
DBTABLOG		
CDPOS	BC_CHDO	
ZZSPLITA		
FMGLFLEXA		
BSEG	FI_DOCUMENT	
D010TAB		
FMIFIIT		
VBPA	SD_VBAK	
FMIOI		
COEP		
SWWCNTP0	BC_WORKITEM	
BALDAT	BC_SBAL	
ARFCSDATA		
BSIS		
GLPCA		
KONV		
D010INC		
VAPMA		
FAGL_SPLINFO_VAL	FI_DOCUMENT	
VRPMA		
BSAS		
BSAD		
DD03L		
ZSDT_RINT		
VBRP	SD_VBRK	
GLIDXA		
VBAP	SD_VBAK	
S570		
S600		
BKPF	FI_DOCUMENT	

LARGEST TABLES	ARCHIVING OBJECT	LAST ARCHIVING RUN
DBTABLOG	2 OBJECTS	
CDPOS	*4 OBJECTS	
ZZSPLITA	FI_SL_DATA	
FMGLFLEXA	FI_DOCUMENT	
BSEG	2 OBJECTS	
D010TAB		
FMIFIIT	FM_DOC_FI	
VBPA	4 OBJECTS	
FMIOI	FM_DOC_OI	
COEP	27 OBJECTS	
SWWCNTP0	8 OBJECTS	
BALDAT	10 OBJECTS	
ARFCSDATA		
BSIS	2 OBJECTS	
GLPCA	2 OBJECTS	
KONV	51 OBJECTS	
D010INC		
VAPMA	SD_VBAK	
FAGL_SPLINFO_VAL	2 OBJECTS	
VRPMA	SD_VBRK	
BSAS	2 OBJECTS	
BSAD	2 OBJECTS	
DD03L		
ZSDT_RINT		
VBRP	SD_VBRK	
GLIDXA	FI_SL_DATA	
VBAP	SD_VBAK	
S570		
S600		
BKPF	2 OBJECTS	