

IBM Tape Analysis Tools Overview

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<https://public.dhe.ibm.com/storage/tapetool/>

Nov 01, 2017: This document was reviewed –

- some tools are added (in blue),
- some others are marked as obsolete (in green),
- "Candidates" to "obsolete" are colored in red.

Tool	Major Use	Benefit	Inputs	Outputs	Product pre-reqs
BADBLKSZ	Identify small VTS blk sizes	Improve VTS performance, make jobs run faster	Logrec MDR & CA1, TLMS, RMM, ZARA, CTLT	Volser, Jobname, Dsname for VTS volumes with small blk sizes	Obsolete
BIRTHDST	Find old cartridges	Improve data reliability	CA1, TLMS, RMM, ZARA, CTLT	List of active data on old media and cartridge birth date distribution.	
BVIRHSTx	Get historical stats from TS7700	Statistics file (BVIR historical file)	TS7700	Creates U, VB, SMF format	
BVIRMES	Get BVIR Volume Status information	Volume Status file	TS7700	Creates VOLFILE data set	
BVIRPHY	Get BVIR Physical Volume Status information	Physical Volume Status file	TS7700	Creates PHYFILE data set	
BVIRPIT	Get Point in Time stats from TS7700	Statistics file (BVIR PIT file)	TS7700	Creates BVIRPIT data file	
BVIRPOOL	Identify available scratch by pool	Reports all pools at once	BVIR file	Physical media by pool	
BVIRPRPT	Reclaim copy export volumes	Based on active GB, not %	BVIR file	Detail report of data on volumes	
BVIRRPT	Identify VTS virtual volumes by owner	Determine which applications or users have virtual volumes	BVIR data & CA1, TLMS, RMM, ZARA, CTLT	Logical volumes by jobname or dsname, logical to physical rpts	VTS 7.4 for size
BVIRVTS	Get Cache Content information, Physical Volume to Logical Volume Mapping Information, Copy Audit Information	Cache Content, Volume Map, Copy Audit	TS7700	Creates CACHFILE, VOLFILE, AUDFILE	
BVPITRPT	Point in Time stats as WTO	Immediately available	TS7700	Point in Time stats as WTO	
CHGDATE	Change dates in SMF 14,15, 21,30,40 records	Allows analyst to simulate combining workloads from two different periods.	SMF 14,15,21,30,40	Modified SMF records	Obsolete

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CHKCOPY	See if peer copy has been made to specific cluster	Confirm copy has completed	CBRXLCS access	Detail report	Obsolete
CHKDUPS	Identify duplicate volsers	Identify duplicate volsers across multiple tape management catalogs	CA1, TLMS, RMM, ZARA, CTLT	List of duplicate volsers	Obsolete
COPYRFSH	Cause peer copies to be made In newly added TS7700 cluster.	No host mounts involved.	List of lvols needing copy	LIB REQ commands	R2.1PGA1
COPYVTS	Copy lvols from old VTS	Recall lvols based on selected application(s)	BVIR data & CA1, TLMS, RMM, ZARA, CTLT	IEBGENER to recall lvols and copy to new VTS	Need copy program
CRTDIST	Show volumes created over time	Determine customer use patterns	CA1, TLMS, RMM, ZARA, CTLT	Distribution of create dates	
DCOLLRPx	Report number of migrate or backup data sets	Identify size of TMM data if considering VTS	DFHSM MCDS file	Number of files and GBs migrated and dsns not recalled since DDMMYYYY	Obsolete
DIFFEXP	Identify multi-file volumes with different expiration dates	Prevent single file from not allowing volume to return to scratch	CA1, TLMS, RMM, ZARA, CTLT	List of files not matching file 1 expiration date	
EXPDIST	Quantify number of volumes expiring n days from now	Determine rate of return to scratch	CA1, TLMS, RMM, ZARA, CTLT	Volume count distribution by media	
EXPORT	Quantify VTS export/import processing times	Determine if E/I is viable	CA1, TLMS, RMM, ZARA, CTLT	Projected off-site volumes, MBs, amount of time for E/I process	
FILETIME	Measure file positioning times	Determine positioning differences between drive types	Run time parameters	Positioning times report	Obsolete
FINDLRG	Identify multi-volume tape data sets	Creates filter list to separate 3590 workload for Batch Magic	CA1, TLMS, RMM, ZARA, CTLT	Data set length distributions by media	
FORMCATS	Create common record format	Single format for all tape catalogs	CA1, TLMS, RMM, ZARA, CTLT	Common extract file from different tape catalogs	
FSRMATCH	Replace *.HMIGTAPE. DATASET in SMF 14 with actual recalled dsname	Allows TapeWise and other tools using SMF 14/15 data to report actual recalled dataset	FSR records plus SMF 14, 15,21,30,40,etc	Updated SMF 14s plus all other SMF records as they were	Obsolete
FSRTMM	Quantify TMM usage	Most TMM activity could be directed to VTS and save CPU cycles	HSM FSR records	Report showing ML0-ML2 and ML2ML0 activity	SAS Obsolete
FTP7680x	Extract stats from TS7680	Easy method to extract stats	TS7680 internal statistics	CSV file of TS7680 statistics	TS7680 Software Obsolete
GETVOLS	Get volsers from list of dsns	Automate input to PRESTAGE	CA1, TLMS, RMM, ZARA, CTLT	volsers for requested dsns	

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GGM:	Grid-to-Grid Migration				R3.3
BVIRGGM	provides the response of all the GGM copy activity records for already completed the GGM copies	Records provide information for each GGM copy volume	TS7700	Creates GGMFILE data set	
GGMTOOL1	It is used to create the lists of "GGM COPY" commands for the volumes with STATUS(MASTER).	List of commands for execution	RMM	The list of command – input for the job ISSUECMD	Both grids are connected to the same host system
GGMTOOL2	It is used to create the lists of "GGM COPY" commands for the volumes with STATUS(SCRATCH)	List of commands for execution	RMM	The list of command – input for the job ISSUECMD	
GGMTOOLA	It is used to create the lists of "GGM COPY" commands for the volumes with STATUS(MASTER).	List of commands for execution	RMM	The list of command – input for the job ISSUECMD	Migration is done from the existing grid to another one while each grid is connected to different host systems.
GGMTOOLB	It is used to create the lists of "GGM COPY" commands for the volumes with STATUS(SCRATCH)	List of commands for execution	RMM	The list of command – input for the job ISSUECMD	
GGMSORT	Sorts command list (GGMQUE created by GGMTOOL1/2/A/B job) by physical volumes from the "volume map" (VOLFILE)	This is needed if source TS7700 is with tapes (TS7740 or TS7720T or TS7760T) to reduce migration time	Command list (GGMQUE created by GGMTOOL1/2/A/B job)	Sorted command list by physical volumes	
BVIRGGM	provides the response of all the GGM copy activity records for already completed the GGM copies	Records provide information for each GGM copy volume	TS7700	Creates GGMFILE data set – input for the job GGMINFO	
GRPDSN	Genericize dsname lists	Speeds up the process of genericizing dsname lists which makes tape study more accurate	Dsname list	Genericized dsname list	
IOSTATS	Report job elapsed times	Show runtime improvements	SMF 30 records	Job step detail reporting	
ISSUECMD	Run "Library Request" commands	Possibility to send commands from host to TS7700	The list of commands	Command are running on TS7700	
LASTLIST	Report volsers last referenced between SDATE/EDATE	Determine how many volsers were last referenced during a period	CA1, TLMS, RMM, ZARA, CTLT	List of volsers and dsnames	

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LIBMANGR*	3494 library contents management	Allows user to identify and eject non mounted volumes	TCDB & CA1, TLMS, RMM, ZARA, CTLT	List of volumes not ref'd in N days, eject list, detail contents rpt	
MOUNTMON*	Monitor mount pending and volume allocations	Determine accurate mount times and concurrent drive allocations	Samples tape UCBS	detail, summary, distribution, hourly, TGROU, system reporting	
OFFSITE	Identifies data sets sent offsite	Creates filter list to separate offsite workload	CA1, TLMS, RMM, ZARA, CTLT	Report plus disk file filter list of offsite dsnames	
ORPHANS	Identify orphan data sets in Tape Management Catalog	Clean up tool	CA1, TLMS, RMM, ZARA, CTLT	Listing file showing all multi occurrence GDGs that have not been created in the last nn days.	
PRESTAGE	Recall lvols to VTS	Ordered and efficient	BVIR VOLUME MAP	Jobs submitted to recall lvols	
QSAMDRVR	Measure tape drive throughput	User picks blksize, bufno, numbers of records, compression for different drive types	Run time parameters	Report showing MB/sec obtained	Obsolete
RCVRPVOL	Recover lvols on a damaged PVOL	Fast & easy recovery	VOLUME MAPs from 2 clusters	Issue commands to recover	Obsolete
SMFILTER	IFASMFDP exit or E15 exit	Filters SMF records to keep just tape activity. Generates "tape" records to simulate optical activity	SMF data	Records for tape activity plus optional TMM or optical activity.	
ST@S3494*	Report 3494 activity	Show # mounts, times, enters, ejects	SMF 94 records	Detail activity reports	To "obsolete"?
TAPECOMP	Show current tape compression ratios	See how well data would compress in VTS	Logrec MDR or EREP history file	Shift and hourly reports showing current read and write compression ratios.	To "obsolete"?
TAPEWISE*	Identify tape usage improvement opportunities	Shows UNIT=AFF, early close, UNIT=(TAPE,2), multi-mount, DISP=MOD, recalls	SMF 14,15,21,30,40	detail, summary, distributions, hourly, TGROU, system reporting	
TCDBMCH	Identify TCDB vs Tape Catalog mis-matches	List volser mis-matches	CA1, TLMS, RMM, ZARA, CTLT	ERRRPT with mis-matched volumes	To "obsolete"?
TMCREUSE	Identify data sets with create date equal to last ref date	Get candidate list for VTS PG0	CA1, TLMS, RMM, ZARA, CTLT	Filter list of potential PG0 candidates	
TVCBYDSN	List data sets in VTS cache	Verify that cache management policies are working as expected	BVIR data & CA1, TLMS, RMM, ZARA, CTLT	List of dsns in cache and the order they will be flushed	
VEHAUDIT	Shows where each LVOL resides in a TS7700 grid	Used to audit that the required copies exist.	BVIR data: CACHFILE, VOLFILE, MESFILE & CA1, TLMS, RMM, ZARA, CTLT	DTLRPT showing attributes and location of lvols in TS7700. COPYDIST shows copy times for peer copies.	

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VEHGRXCL	Graphing package	Graphs TS7700 activity	VEHSTATS flat files	Many graphs of TS7700 activity	Excel Obsolete
VEHSTATS_MODEL (xls & ppt)	Graphing package	Graphs TS7700 activity	VEHSTATS flat files	Many graphs of TS7700 activity	Excel / ppt
VEHSCAN	Dump fields in historical statistics file	Individual field dump	BVIR stats file	DTLRPT for selected record(s) and interval	
VEHSTATS*	TS7700 historical performance reporting	Show activity on and performance of TS7700	BVIRHSTx file	Reports showing mounts, data transfer, box usage and many other info	
VEPSCAN	Dump fields in Point in Time statistics	Individual field dump	BVIR PIT file	DTLRPT for selected record(s) and interval	
VEPSTATS	TS7700 Point in Time statistics	Snapshot of last 15 seconds of activity plus current volume status	BVIRPIT data file	Reports showing current activity and status	
VESYNC	Synchronize TS7700 after new cluster added	Identify lvols that need copies	BVIR data & CA1, TLMS, RMM, ZARA, CTLT	List of all volseres to recall by application	
VOLLIST	Show all active volseres from tape management catalog. Also get volume counts by group, size, and media.	Used to get a picture of user data set naming conventions. See how many volumes are allocated to different application	CA1, TLMS, RMM, ZARA, CTLT	Dsname, volser, create date, volseq . Group name, counts by media type.	
VOLREUSE	Show volume reuse activity	Identify data sets for VTS cache management	SMF 14,15,21,30	OUTRPT reuse distribution	
VTSCAN94	Show VTS/3494 serial numbers	Allows analyst to pair A/B to PtP. Ability to list individual field from record.	SMF 94 records	Report showing SMF 94 records found by serial number.	Obsolete
VTSSTATS*	VTS performance reporting	Show how VTS is performing	SMF 94 records	Physical drive, virtual drive, TVC statistics reports, hourly and daily.	

* presentation available in ftp download site

See UPDATES.TXT for enhancements and fixes.