

FASTCPK

DASD VOLUME REORGANISATION

z/OS Storage Management



Modern disk arrays are still regarded by the z/OS operating system as a set of conventional DASD volumes. Each logical volume in the array has a fixed number of cylinders, and space is managed in the usual way – with a standard VTOC and VTOCIX.

The reasons for re-organising a DASD volume are, for most z/OS installations, as valid today as they have always been.



Introducing FASTCPK

FASTCPK is a DASD Volume reorganisation tool which provides a solution to a wide range of DASD-related Storage Management issues, including:

- **Free Space Fragmentation**
FASTCPK consolidates free space on a volume into as few as one or two contiguous areas.
- **Multiple Extents**
FASTCPK merges the extents of Sequential, PDS, PDSE, VSAM, DB2 and Extended Format VSAM data sets.
- **Wasted Space**
FASTCPK releases all or part of the unused space within Sequential, PDS, PDSE, VSAM, DB2 and Extended Format VSAM data sets.
- **VTOC errors**
FASTCPK analyses a VTOC and detects logical errors (e.g. invalid F5's and incorrect free space definitions).



Key Benefits

- Re-gain control over the utilisation of your z/OS DASD space and ease dataset allocations by reducing the over-allocation of data sets.
- Reduce the occurrences of x37 abends and limit the number of multi-vol data sets.
- Detect VTOC errors before they can do any harm to your data.
- In a *single* execution, FASTCPK can reduce free space fragmentation, merge the extents of multi-extent datasets and release unused free space.



Performance

FASTCPK is ultra-fast!

- Get the job done in just a few minutes with a minimum of intrusion.
- Typically, it takes 1 to 2 minutes to consolidate free space, merge extents and release unused free space on a 3390-3.
- The SIZEKEEP parameter can limit the amount of data moved by FASTCPK, allowing it to finish even faster.
- You can opt to just release unused free space using the optional TYPE=RLSE mode of FASTCPK, which usually runs in less than 10 seconds!



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Storage Management Solutions

Free Space Fragmentation. Many disk volumes have small non-contiguous areas of free space spread haphazardly throughout the volume. Although the primary allocation of a new data set can be satisfied in multiple extents, if no single free space extent is large enough, this may force the data set to be allocated from two or more non-contiguous free areas.

FASTCPK can quickly consolidate free space on a volume into as few as one or two contiguous areas.

Multiple Extents. Either through natural growth or inaccurate space estimates, data sets often grow beyond their original allocated size. They may end up occupying up to 123 extents and it may become impossible to extend the data set even though a large amount of free space is still available on the volume. This leads to the creation of multi-volume data sets, which have their own special set of requirements (e.g. on backup and restore).

FASTCPK can merge the extents of Sequential, PDS, PDSE, VSAM, DB2 and Extended Format VSAM data sets.

Wasted Space. Some data sets on a volume may occupy a larger data space than necessary. This can be caused by inaccurate space estimates or a reduction of the amount of data in the data set. The unused space within these data sets is not available for allocation to other data sets.

FASTCPK can release all or part of the unused space within Sequential, PDS, PDSE, VSAM, DB2 and Extended Format VSAM data sets.

VTOC errors. Hardware and software system failures can lead to inaccurate VTOCs, which do not reflect the true status of the volume on which they reside.

FASTCPK can analyse a VTOC to detect (and in most cases fix) logical errors, such as invalid F5 DSCBs and incorrect free space definitions.



Detail and Summary Information

FASTCPK can produce a wide range of information, in both detailed and summary format. The MAP function allows you to map out the contents of selected volumes, while the SIMULATE feature lets you see the effects of a Compaktion without actually having to run

it for real. Before and After maps can be produced for each volume processed, either on a SIMULATE or a real Compaktion, together with a concise summary of the effects of the Compaktion. Here is an example of the summary report:

CPK301I INNOVATION DATA PROCESSING-COMPAKTOR VER. 5.4/67P COMBINED SUMMARY DATE 2008.104 TIME 12.48.33																			
-NUMBER OF - >1 -- ALLOCATED ---										FREE	FREE	EMPTY	TRACKS	IN	-VTOC-	TIME	COMP		
VOLSER	DEVTYPE	TRACKS	DSNS	EXTS	TRACKS	EXTS	%AL	TRACKS	AREAS	LARGEST	INDEX	VSAM	PS	PO	SIZE	%US	(MIN)	CODE	
IDPLB0	3390-3	50085	153	15	27377	220	55	22708	75	3870	0.314	0	768	634	75	4			90% Reduction in Free Areas
-- AFTER-CPK-->			153	5	26094	167	52	23991	7	5490	0.207	0	37	82	75	4	1.3	0	Reclaimed Most of the Over-Allocated Space
TSOWK1	3390-3	50085	134	18	38004	193	76	12081	68	2370	0.371	0	637	4849	75	4			
-- AFTER-CPK-->			134	11	32574	162	65	17511	6	6960	0.170	0	26	30	75	4	.6		Elapsed Time

Want to Know More About FASTCPK? For a No-Obligation FREE Trial or to request a FREE Concepts & Facilities Guide, ask your local sales representative or visit: <http://www.innovationdp.fdr.com>



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