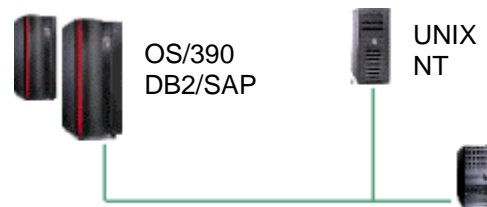


BCV4SAP

Cloning SAP/DB2 Systems



Fast availability of SAP/DB2 Clones

Modern storage subsystems support sophisticated mirroring of disk data where primarily you have the ability to separate and reconnect the mirror copy very quickly (split and resume) with your server. The cloned disks so created are known as Business Continuance Volumes (BCVs). BCVs and the mirrored, current data on them facilitate an array of useful functions:

- Quickly clone entire DB2, IMS and other database systems
- Timely availability of information to data warehouses, application servers, etc.
- Parallel running of evaluations, queries and reports
- Creation of test systems from the production ones for testing, debugging etc.
- Creation and testing of new versions and releases
- Creation of a SAP Clone (DB2 server for SAP), etc.

Hardware vendors offer different solutions. Some copy at volume level whereby the VOLSER may be optionally transferred. If the source and target are on the same control unit the copy will only take seconds. Other vendors permit a continuous mirror-copy of the volume and can interrupt the mirroring process to create a point-in-time copy within seconds.

However in the OS/390 (z/OS) world such volumes may be used only as backups when on the same LPAR of the Sysplex, since the target files still have the same dataset names and therefore:

- they cannot be catalogued on the same system
- the catalog points to the source files
- the VVDS and VTOC index names are identical to the original names
- the ENQ feature of OS/390 prevents a parallel update of different files with the same dataset names
- the DB2 internal catalog still points to the source volume

Duplicate VVDS names, duplicate VTOC index names and hundreds or thousands of duplicate dataset names therefore prevent the immediate use of the target volumes. In addition there are problems with the DB2 internal catalog structure and SAP database servers under DB2. What is required is a consistent renaming procedure for the files.

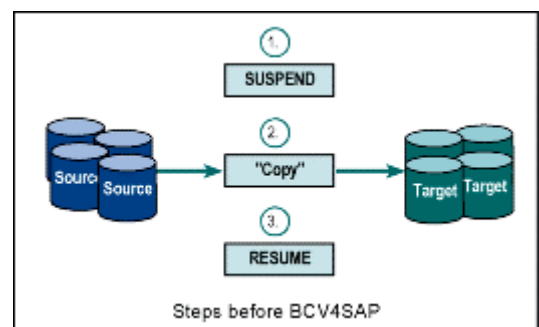
BCV4SAP introduces the functionality to do this renaming quickly and systematically. After processing through BCV4SAP the target volumes may be used by standard OS/390 (z/OS) access methods.

BCV4SAP is "vendor independent" and will work with TimeFinder*, Snapshot*, FlashCopy*, Peer-to-Peer Remote Copy, ShadowImage*, NanoCopy*, etc.

You could instead also use the generally available ADRDSSU* utility to create a volume dump. Irrespective, BCV4SAP offers complete "make usable" functionality after the creation of the mirrored environment, where all necessary work is carried out in a single job.

The user defines the following in the form of a table:

- Source volumes and Target volumes
- Source first-level qualifier and Target first-level qualifier
- Source user catalog and Target user catalog
- DB2: Source-DB2 and Target-DB2
- SAP: Y/N optional



Time	Source System	Target System
23:50	SET LOG SUSPEND	
00:00	Create Target Environment e.g. Split hardware mirroring	Create copies
00:05	SET LOG RESUME	Rename the target datasets Correct the VTOC and VTOC-index Correct the VVDS Catalog the target datasets
00:10		Correct internal DB2 structures Correct SAP to match
00:15		Start the target environment
Course of events		

The cloned environment is available within 15 minutes!

The figures shown above are based on an environment with a **70,000 datasets** SAP/R3 4.6D and **30 volumes** (3390).

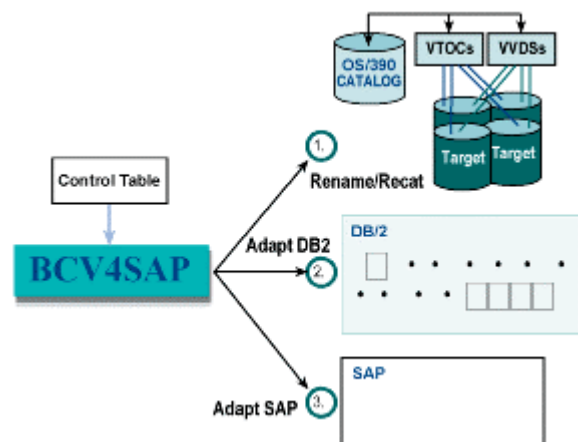
Example of a BCV4SAP Input Table:

With information supplied such as that in the following table, BCV4SAP makes available the corresponding SAP target system in minutes to the source or other LPARs. The system programmer or DBA creates this table once. As long as there are no changes in the configuration it can be used again and again. It provides the information needed for the job-card and to rename qualifiers. BCV4SAP creates internal jobs, which when submitted carry out the required rename/recatalog work to make the system useable.

```

JOB=//XXXXXXXX JOB ACCOUNT, 'programmer-name', MSGLEVEL=(1,1),
JOB=//                MSGCLASS=X,
JOB=//                REGION=4M
JOB=// *
CAT=UCAT.DSAP,UCAT.DSA1
DSN=DSAP,DSA1,SYS
CAT=UCAT.DANWSAP,UCAT.DANWSA1
DSN=WDSAPWDB,S3SA1WDB,ANW
DSN=VDSAPWDB,T3SA1WDB,ANW
DB2=DSAP,DSA1
DBC=DSAP,DSA1
VOL=SRC001,TGT001
VOL=SRC002,TGT002
VOL=SRC003,TGT003
VOL=SRC004,TGT004
VOL=SRC005,TGT005
VOL=SRC006,TGT006
VOL=SRC007,TGT007
BS1=DSAP.BSDS01,DSA1.BSDS01
BS2=DSAP.BSDS02,DSA1.BSDS02
LG1=DSAP.LOGCOPY1.DS01,DSA1.LOGCOPY1.DS01
LG1=DSAP.LOGCOPY1.DS02,DSA1.LOGCOPY1.DS02
LG1=DSAP.LOGCOPY1.DS03,DSA1.LOGCOPY1.DS03
LG2=DSAP.LOGCOPY2.DS01,DSA1.LOGCOPY2.DS01
LG2=DSAP.LOGCOPY2.DS02,DSA1.LOGCOPY2.DS02
LG2=DSAP.LOGCOPY2.DS03,DSA1.LOGCOPY2.DS03
DBL=SYS2.DB2.SDSNLOAD
SAP=SAP,SA1
SAL=DSAP.RUNLIB.LOAD,DSA1.RUNLIB.LOAD

```



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