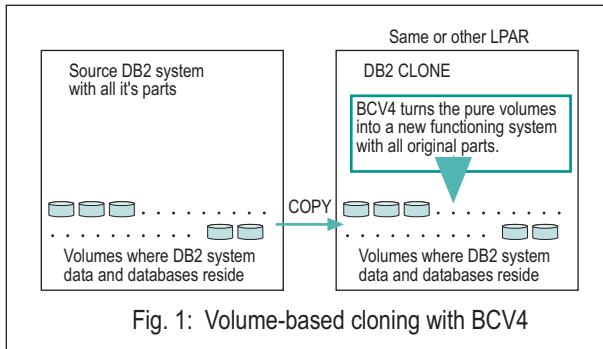


# Fast Database Clones with BCV5

*Automated Process*

BCV5 provides for fast duplication or cloning of DB2 databases. The databases can be copied within the same DB2 system or to another system. To provide for only short delays in the availability of the source databases the copy or duplication



process can use the fastest mechanisms available: 'dataset snapshot', 'volume restore' or 'volume copy'. In connection with IBM's, EMC's, HDS', or StorageTek's high speed facilities huge databases can be cloned in seconds.

During the cloning process, certain environmental definitions, like 'Creator', 'Owner', 'Database Name', 'First-Level-Qualifier' may be influenced by parameters.

## How does BCV5 work?

BCV5's process of cloning a DB2 database consists of 4 stages. Each stage executes as an automatically generated job. An ISPF environment is provided to simplify initiation and tracking of database clone requests. Stage 1 gathers all system information of the database to be cloned from the source system. Stage 2 uses this information and the renaming specifications entered by the user to generate the database clone in the target system. Stage 3 replaces the dummy tablespaces allocated in Stage 2 with the tablespaces from the copy process. Step 4 adapts the tablespaces to the renaming requirements.

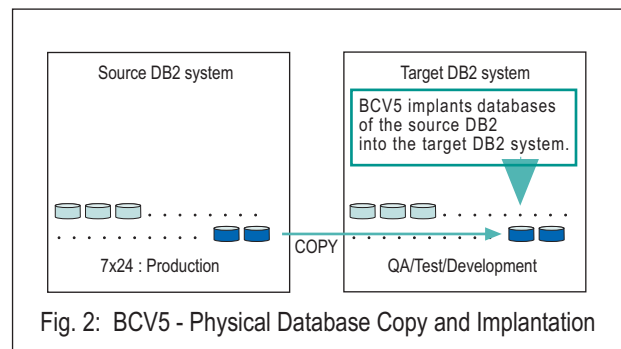
## What is the difference to BCV4?

BCV4 automates the cloning of entire DB2 systems. It turns pure 'volume copies' of a whole DB2 system, single or shared environment, into a new functioning DB2 system, a clone of the

original. (See Fig. 1). SAP calls such a clone a Homogeneous System Copy. BCV4 provides a DB2 system clone within the shortest time possible. It automates the whole process: renames datasets, changes VTOCs and VVDS', creates new catalogs, recatalogs all files, and adjusts DB2. In other words, BCV4 clones entire DB2 systems, BCV5 clones databases. Both products are inspired by the idea to keep the copy time short, i.e. to minimize outage of the source.

## Why is BCV5 so fast?

BCV5 operates on datasets, the tablespaces or on volumes which contain the tablespaces. Using high speed storage facilities such volumes or datasets can be copied within seconds. This means, that the required database stop time can



be minimized. BCV5 processes the volumes or datasets and "implants" them into the target DB2. It generates a jobstream which carries out all necessary activities such as: reading the definitions from the source, defining the clone in the target system, and 'connecting' the clone to the copied files.

BCV5 is compatible to DASD hard/software of all vendors. This ensures the shortest delay in the availability of the source DB2 system. BCV5 uses standard IBM interfaces for all tasks, so compatibility to all current DB2 releases is guaranteed.

## Why should BCV5 be used instead of the standard DB2 utilities?

One reason is speed. Copying a database requires stopping it, which results in unwanted production outages. BCV4 ensures the shortest possible delay.

Another reason is that BCV5 provides a totally integrated and automated process. The system has an ISPF-Interface where the user specifies which databases are to be processed and what parameters are to be changed. Once a BCV5 clone process is defined, it is simply a matter of submitting a jobstream to move/copy one or more databases repeatedly.

Customers report improved levels of data integrity and availability due to the reduction of manual interaction. Others report performance improvements, reduced manual effort and,

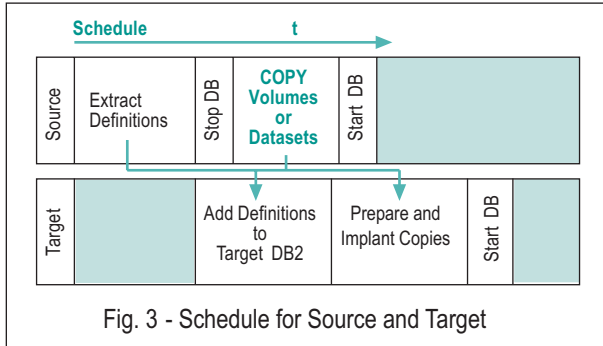


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## Copy Database with BCV5

*High-Speed  
Cloning Process*

above all, a more stable production and the avoidance of undesired outages.



BCV5 takes today's high-speed hardware and copy/restore utilities, and accelerates them to new levels of performance. Its high-speed cloning process is unique in the industry.

BCV5 facilitates consistent physical copies of DB2 databases going from the original source DB2 to the target system. Source and target may be the same or different DB2 systems.

BCV5 provides fast generation of:

- database clones in the same or different DB2 systems,
- implementation environments,
- test environments,
- training environments,
- development environments.

### Does BCV5 require BCV4?

No. BCV5 works on databases, BCV4 on DB2 systems. BCV5 provides the capability to copy selected databases within the same DB2 system or into another DB2. The physical copy process can use 'volume dump/restore', 'volume copy', or 'dataset copy'.

### In which situations can BCV5 help?

- Production needs an additional database for queries in workload peak times
- Training department needs an additional training class/zone
- Development needs a starting point for a new release/version
- QA needs a test environment
- DBA needs to change parameters like 'creator' for an entire database (no copy at all).

### How does BCV5 complement BCV4?

BCV4 provides a clone of an entire DB2 system. BCV5 supplements BCV4 by allowing customers to "maintain" this environment:

Customers find it convenient to have BCV4 create a completely new DB2 system, a clone, and afterwards use BCV5 to populate this system with additional databases, or to duplicate existing databases, or to "rewrite" existing databases i.e. refresh with production data.

BCV5's renaming abilities obviously go beyond those of BCV4. That's what makes BCV5 useful even when only database parameters are to be changed without copying it.

*Compatible with IBM,  
EMC, HDS, StorageTek, etc.*



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Am Zickmantel 16 · D-36341 Frischborn  
Tel. +49 (0)66 41/65 51-0 · Fax +49 (0)66 41/65 51-11  
zentrale@ubs-hainer.com · http://www.ubs-hainer.com