BCV5

Log-On SOFTWARE

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Copy and Migration Tool for DB2

BCV5 provides for fast copying of DB2 data. Compared with other conventional copying methods, BCV5 saves about 90% on elapsed copy time and over 90% on used resources (SSU, SRU). BCV5 copies DB2 data, i.e. databases or tables, with or without auxiliary objects - indexes, views, triggers, procs, runstats. The same is true for copying between different DB2 subsystems – referred to commonly as migration – where BCV5 automatically attends to OBID translation and RBA adaptation. With BCV5, copy jobs are completed in minutes where before they took hours. Weekend work can be executed within regular night shifts. Test data may be refreshed any time. The investment is justified within a few months of going into production.

How does BCV5 work?

Using BCV5 panels, the user selects the databases or tables that are to be copied and specifies the auxiliary objects like indexes, views, runstats, etc. that also need to be migrated. BCV5 then automatically creates the jobs which execute all the necessary activities (see, Figure "BCV5 Work Flow"):

- transports or duplicates the required DDL, ①+②
- copies tablespaces with high speed program, ③
- cares for OBID translation and adaptation of HRBA. ④

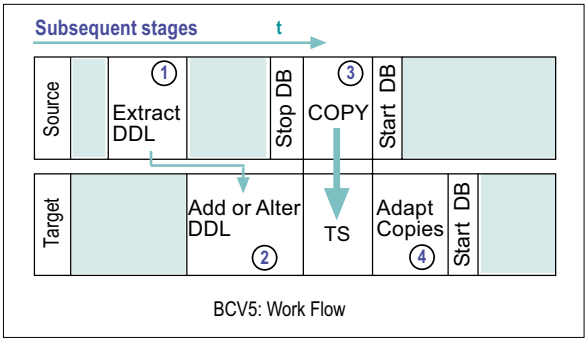
The system has an ISPF-Interface where the user specifies which objects are to be processed and how. Importantly, the product requires the user to complete just a few panels. That said, the product contains many functions which ease the daily work of DBAs and operations. BCV5 provides a totally integrated and automated process.

For repeat copies the user can specify whether the definitions of the objects (the “DDL”) of the target should be dropped and re-created. BCV5 has in-built intelligence to decide if deviations in the tables definitions are admissible or not. If necessary, BCV5 can automatically switch the process from a copy to an unload/reload for the relevant tables.

Customers report improved levels of data integrity and availability due to the reduction in manual activities. Others have highlighted performance improvements, stable production environments and the avoidance of lengthy undesired outages. Once a BCV5 clone process is defined, it is simply a matter of re-submitting a jobstream to repeatedly move/copy the selected database(s).

Fast, Efficient, Automated

BCV5 was developed in close collaboration with large DB user sites to cater for the unexpected. For example, BCV5 recognizes if there are more indexes defined in the target than in the source and the copy process will also rebuild the additional ones. BCV5 easily interfaces with all schedulers on the market.



BCV5: Work Flow

BCV5 is designed to be adapted to every kind of environment. Source and Target may reside on different machines, LPARS, or SYSPLEXs and however connected, BCV5 will copy from one to the other.

```
                BCV5 Task Definition
Command ===>
 Task name          ===> GLC003
 Task Description   ===> Copy GeneralLedger 05003

 Source DB2 subsystem   ===> DSNP
 Source Table(s)        ===> ledpp%
 Source Creator         ===> led%

 Target DB2 subsystem   ===> DSNT
 Target Creator         ===> TLED
 Target Storage Group   ===> TSTG0011

 Create Views           ===> NO
 Create Triggers        ===> YES
 .......
```

BCV5: Table Select

Why is BCV5 so fast and efficient?

BCV5 works with tablespaces and indexspaces, treats them as VSAM Linear Datasets and lets the device controllers do the 'copy work'. This frees the CPU from executing row-wise operations as required by all unload/load based mechanisms. BCV5 is compatible with the DASD hardware/software of all vendors. It uses standard IBM interfaces for all tasks, so

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Copying of DB2 Data with BCV5

High-Speed Cloning Process

```
          BCV5 Task Options Definitionss
Command ===>

Task name        ===>  DRDOG12
Task description ===>  MIGR. RDO CLIENTS

Task Run Options
  Perform Complete Process ===> YES (YES/NO)
  Perform Copy Only        ===> YES (YES/NO)
  Perform Definition Only  ===> YES (YES/NO)
Output
  Create Views             ===> YES (YES/NO)
  Create Triggers          ===> YES (YES/NO)
  Create Procedures        ===> YES (YES/NO)
  Create Bind Statements   ===> YES (YES/NO)
  Create Grant Statements  ===> YES (YES/NO)
  Rebuild Indexes          ===> YES (YES/NO)
  Change Space Allocation  ===> YES (YES/NO) __%
  Keep RESTRICT ON DROP    ===> YES (YES/NO)
Processing Options
  Automatic Submit         ===> YES (YES/NO)
  Cons. Changes in Source  ===> YES (YES/NO)
  Split between systems    ===> YES (YES/NO)
  Allow OBID Translation   ===> YES (YES/NO)
  DROP and CREATE          ===> YES (YES/NO)
  Copy Runstats            ===> YES (YES/NO)
Copy Utility
  Copy Utility to be used  ===> COO
  (COO,XOO,MOO,ZOO,YOO,AMS,SIB,DSS)

Input
  Input Dataset to be used ===> TBLS (TBLS/IC)
  (DB2 Tablespace / DB2 Image Copy)
```

BCV5: Define Task Parameters

What is the difference to BCV4?

BCV4 automates the cloning of entire DB2 subsystems. 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. Sometimes a clone is called 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 internals. Put simply, BCV4 clones entire DB2 systems, BCV5 copies or migrates tables or databases. Both products motivation is to keep the copy time short, save resources and minimize unavailability of the source. There is no dependency between the products.

```
                    BCV5 Tasks
 Command ===>

The Primary Command Insert causes a new Task
to be inserted. The following line commands
are valid for every line:

  E edit selected task    I insert a new task
  D delete selected task  R run selected task

CMD Name     Description          User Type  Sub
------------------------------------------------
    ASDF     Copy DBASDF          SVEN  1    NO
    PARTNUMB DATA PARTS           GERD  2    YES
    RHHDBX03 MIGRATE ORDERDB      DANNY 1    YES
      ....     ...............    .....  .    ....
```

BCV5: View, Edit, Add, Runn Tasks

compatibility to all current and future DB2 releases is guaranteed. BCV5 uses the fastest mechanism available on customer site. BCV5's internal copy method ensures speed and efficiency with 90% savings in elapsed time and 90% savings in system resource units (SRUs). Used in connection with RVA-like components such as Flashcopy2, the copy time can be reduced further, and more importantly, suspension of the source is minimized. Additionally BCV5 accepts DB2 image copies instead of the tablespaces as input. Minimal suspension is important in 24x7 environments.

Today's business environment is demanding greater performance and reliability from IT systems. Progress and development of your IT systems impact day to day reliability and availability of operational systems. It is imperative that the best tools and processes are applied to minimise risk and increase overall business productivity. The BCV5 product offers significant benefits to business using DB2 database systems. BCV5 provides for extraordinarily fast duplication and copying of DB2 databases or sets of tables.

90% savings in wall clock time and resource consumption!

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