

Catalog Backup Considerations

IDCAMS vs. T-REX



Benefits of T-REX Backup vs. IDCAMS

IDCAMS EXPORT

Specifics

- An adequate facility for “normal” access without provisions for structural analysis
- Capable of including related user catalog aliases when creating BCS backups.
- Singular processing only (one source BCS backup written to one backup data set).
- Requires manual intervention to provide backup performance improvement (tuning).
- Requires management of multiple backup data sets, one per source BCS.
- Requires updates when/if new BCS are created to specifically name source BCSs.
- Always retrieves records sequentially via the BCS index (although rare, the potential exists where an IDCAMS EXPORT completes with CC=0000 with an incomplete backup due to Sequence Set horizontal pointers being populated with binary zeros).
- Duplex or multiple backup copies require multiple iterations of the EXPORT command or manual manipulation to “copy” backups.
- No dynamically invoked diagnostics available.
- Without tuning, it is rather slow.

T-REX EXPORT

Specifics

- Provides record access using the data component to ensure complete logical record retrieval and also allows you to choose backup by index.
 - ◀ **Benefit:** Provides “complete” backups and dynamic analysis of BCS structure during logical record “deblocking.”
- Capable of including related user catalog aliases when creating BCS backups.
- Flexible and dynamic selection in support of multiple BCS processing. The dynamic selection operates in “real time” so new entries honoring existing naming conventions would be automatically selected for backup.
 - ◀ **Benefit:** Eliminates the need to update production backup job JCL.
- Automatically retrieves the maximum amount of data per I/O to provide performance unobtainable using IDCAMS EXPORT.
 - ◀ **Benefit:** BCS backup performance minimizes impact to production scheduling because of its I/O performance.

Benefits of T-REX Backup vs. IDCAMS

- Offers the ability to multi-task BCS backups to provide improved processing performance.
 - ◀ **Benefit:** Multi-tasking improves the processing dynamic to achieve substantially lower backup job elapsed times.
- Multiple BCS backups can reside on a single target backup data set.
 - ◀ **Benefit:** Minimizes the need to track and manage singular backup data sets by BCS.
- Multiple backup copies can be dynamically created with a single “pass” of the source BCS logical data records.
 - ◀ **Benefit:** Allows you to dynamically create multiple backup copies with very little impact to backup job performance.
- Provides the option to dynamically execute IDCAMS EXAMINE as part of the T-REX EXPORT process.
 - ◀ **Benefit:** Provides assurance that when the backup was created, no errors were detected in the target BCS.
 - ◀ **Benefit:** Alerts you that errors exist in the target BCS dynamically as part of the backup process.
- Provides the option to dynamically execute IDCAMS DIAGNOSE ICFCATALOG as part of the T-REX EXPORT process.
 - ◀ **Benefit:** Provides detection of “logical” and/or “relational” errors dynamically as part of the backup process.
- Dynamically analyzes the number of extents currently occupied by both the data and index components. If either is greater than 90% of the maximum allowed, it will alert you via T-REX messaging.
 - ◀ **Benefit:** Helps mitigate an exposure for an “exhausted number of extents” before the Catalog Address Space fails to “insert a next record.”
- Validates the amount of DASD volume free space to ensure that there is enough available space to accommodate a BCS secondary data component extent. If insufficient space exists on the volume, the EXPORT command will alert you via T-REX messaging.
 - ◀ **Benefit:** Helps mitigate an “out of space” condition before the Catalog Address Space fails to “insert a next record.”
- Provides an EXPORT Summary with record counts and condition codes for EXPORT, EXAMINE, and DIAGNOSE.
 - ◀ **Benefit:** Provides an easily reviewable “snapshot” of the BCS backup process.
- T-REX provides other commands that allow you to use a T-REX EXPORT backup copy as input to DISPLAY, LISTCAT, and COMPARE.
 - ◀ **Benefit:** The DISPLAY command provides the ability to display information residing in the backup copy (aliases, key values, record contents, and object information regarding the attributes and characteristics of the BCS). The LISTCAT command allows you to provide specific “LISTCAT” output using the backup as input. The COMPARE command allows you to “logically” compare the contents of the BCS backup to the current “live” BCS.