

PRODUCT SHEET
CA Disk Backup and Restore

CA Disk™ Backup and Restore r12.5



CA Disk Backup and Restore (CA Disk) automates z/OS backup, recovery, archive and restore activities to enable cost-effective use of the storage hierarchy. It features incremental backup and recovery at the data set, volume, application and entire complex levels and provides a complete set of tools and functions for backup and management of SMS and non-SMS controlled data sets.

Overview

CA Disk enables storage administrators to manage petabytes of storage media without the need for additional staffing or specialized tools. CA Disk saves valuable DASD space, while providing an easy methodology for converting to new technologies. It also provides comprehensive data management for protecting and restoring critical data via backup and restore capabilities, moves data sets from volume to volume, sweeps DASD for unused data sets and migrates to anywhere within the storage hierarchy.

Business value

CA Disk effectively manages storage growth and safeguards information assets by delivering automation flexibility, ease of use, control and data integrity. It optimizes storage resources, in addition to controlling storage costs, and maintains desired service levels by archiving infrequently used data sets to less expensive storage media.

Features

Mainframe 2.0

CA Disk has adopted key Mainframe 2.0 features that are designed to simplify your use of CA Disk and enable your staff to install, deploy and maintain it more effectively and quickly.

- **CA Mainframe Software Manager™: CA Mainframe Software Manager (CA MSM)** automates CA Disk deployment and maintenance and removes SMP/E complexities.
 - The **Software Acquisition Service** enables you to easily move product installation packages and maintenance from CA Support Online directly to your mainframe environment and prepare them for installation.
 - The **Software Installation Service** standardizes CA Disk installation, which includes a new, streamlined Electronic Software Delivery (ESD) method that allows CA Disk to be installed using standard utilities. This service also provides standardized SMP/E product installation and maintenance via APARs and PTFs, and simplifies SMP/E processing through an intuitive graphical user interface and an intelligent installation wizard.
 - The **Software Deployment Service** enables you to easily deploy CA Disk in your mainframe environment.
 - **CA MSM Consolidated Software Inventory (CSI)** updates and infrastructure improvements add flexibility to CA MSM processing of CSIs and enable CA MSM to more effectively utilize CPU and system memory.
- **Installation Verification Program (IVP) and Execution Verification Program (EVP):** As part of qualification for inclusion in the set of mainframe products from CA Technologies released every May, CA Disk has passed stringent tests performed through the IVP and EVP to find and resolve interoperability problems prior to release. These programs are an extension of CA Technologies ongoing interoperability certification initiative launched in May 2009.
- **Best Practices guide:** This guide provides information on CA Disk installation, initial configuration and deployment to shorten the learning curve for staff who are responsible for the installation and management of this product.
- **Health Checker:** The Mainframe 2.0 Health Checker provides CA Disk Health Checks that execute under the IBM Health Checker for z/OS. CA Disk Health Checks:
 - Monitor your set-up, parameter settings and CA Disk activities
 - Determine whether you are running CA Disk at its highest possible performance level
 - Report if valuable features and functions are mistakenly disabled and provide detailed recommendations on how to correct the problem
 - Advise you how to implement each of the best practices that are monitored

Other key features

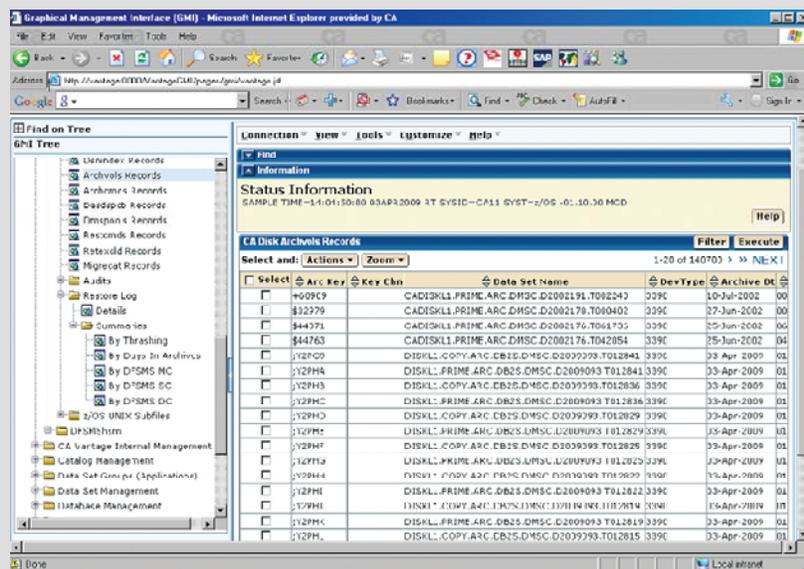
- **Helps ensure efficient space utilization:** CA Disk initiates Idle Space Release for sequential, partitioned and VSAM data sets. Select to release all, or retain a percentage of, unused space—depending on specific needs. In addition, for non-VSAM data sets, growth can be controlled by adjusting the size of the secondary extent to a percentage of the primary extent.
- **Simplifies data migration:** CA Disk can easily move or copy data sets from one DASD volume to another—both DFSMS and non-DFSMS data. The data administrator can scan multiple volumes and move selected data sets to other volumes. It also provides the ability to move non-DFSMS data sets to DFSMS volumes.
- **Provides incremental backup and recovery:** Incremental backups eliminate the need to perform full-volume backups.
- **Offers powerful CA Datacom/AD technology:** The base release of CA Disk r12 also introduced a major technology improvement that gives you the flexibility and choice to select the best possible implementation and use of the product for your environment. You can now choose to use tight integration with the CA Datacom®/AD database as the data repository, or continue to utilize the Direct Access FILES Data Set (FDS):
 - If the FDS is your preferred technology, be assured that CA Technologies will continue supporting the FDS for years to come.
 - If you prefer the using the CA Datacom/AD database, there are several un-interruptive methods for implementation of this processing technique and you will realize many new benefits, functions and features going forward, which are outlined below:
 - **Improved performance:** By utilizing the CA Datacom/AD database, CA Disk uses the high-performance multi-tasking and multi-threading engine provided by the database.
 - **Constraint relief:** The existing maximum of 65,535 datasets per tape volume is eliminated when CA Datacom/AD database is implemented as the product data container. This allows full utilization of high-capacity tapes when backups and archives include small data sets.
 - **Improved merge:** Merge processing time will be greatly improved, as CA Disk will now be able to use the ARCHVOL as an alternate key to access the DSNINDEX records directly from the CA Datacom/AD database. The requirement to unload and sort the file is eliminated.
 - **Reduced contention:** Historically, CA Disk required the operating system to use the RESERVE and Data Set Enqueing, thus single threading the workload. But, CA Disk will now process using the record-level locking provided by the CA Datacom/AD database.

- **Self reorganizing:** Switching to the CA Datacom/AD database will save the downtime needed for FILES Data Set reorganizations as the process is “self reorganizing.” This means the database requires no outage for maintenance.
- **IXMAINT performance improvement:** CA Disk r12 SP2 introduced a new methodology of retrieving buffers and then adds the data set names in the buffer to a table for high-speed searching. This has the added benefit of improving runtime performance for IXMAINT because rereading buffers to find GDGs and AIXs is not needed.
- **Extended DASD devices supported:** The addition of the database provides for the dynamic extension of the database, as well as multi-volume DASD and mixed DASD device support.
- **Flexible migration:** There are capacity limitations when using the FILES Data Set container, thus you were forced to manage several concurrent FILES datasets. A utility is provided to migrate all those FILES into a single CA Datacom/AD database, simplifying management and monitoring. Consolidation of several CA Datacom/AD databases into a single one is also supported.
- **Ad-hoc reports:** User-defined ad-hoc batch SQL reports are now supported in addition to the existing CA Disk product reports. Moreover, the CA Graphical Management Interface (CA GMI) included in the CA Disk base supports the CA Datacom/AD database.

FIGURE A.

Unify and simplify your storage management operations

The CA GMI Object Tree shows the Web-based user interface.



- **Integrates with Web-based and Windows-based CA Graphical Management Interface (CA GMI):** This no-cost feature brings a common user interface, either Web-based or Windows-based, to the power of CA Disk that allows you to easily execute most commands, quickly create reports and view ARCHVOL and DSINDEX, DMSPOOLS records, as well as the FDS or CA Datacom/AD information and much more. It also provides for scheduling JCL submissions. In addition, CA GMI permits many of the capabilities and value of CA Vantage™ Storage Resource Manager to be at the fingertips of CA Disk users.
- **Offers DFSMS best-fit interface exploitation for restores:** CA Disk makes use of the capabilities provided by the DFSMS Space Constraint Relief feature in z/OS. If a DFSMS data set is unable to be allocated because of lack of space, the allocation request is re-issued, invoking the DFSMS Best Fit facility provided under the Space Constraint Relief functionality.
- **Includes dynamically adjusted allocation requests for VSAM:** This feature improves Restore for VSAM data sets, which supports allocations based on consolidated space, used space or original space amounts.
- **Supports LARGE data sets in sequential migrate:** This enhancement provides support for migrating LARGE data sets, which is greater than 64K tracks, to tape. By moving the infrequently used large data sets, data centers can reclaim the DASD space used.
- **Offers IXMAINT performance improvement:** CA Disk r12 SP2 introduced a new methodology of retrieving buffers and then adds the data set names in the buffer to a table for high-speed searching. This has the added benefit of improving runtime performance for IXMAINT because rereading buffers to find GDGs and AIXs is not needed.
- **Includes CA OPS/MVS® Event Management and Automation Health Checks:** This enhancement allows CA Disk to dynamically notify CA OPS/MVS® Event Management and Automation of the installation or removal of the Catalog SVC intercept, which is necessary to run Auto-Restore for data sets. This allows the installation to define actions to be performed when the event is triggered.
- **Offers sequential migration support for multivolume data sets:** This enhancement extends the Sequential Migration support for multivolume data sets from the current 20 volumes to up to 59 volumes per data set.
- **Integrates with CA Service Desk:** CA Disk now interfaces to CA Service Desk to automatically generate requests, or problem tickets, to track product-related events, in addition to console displays. A severity code is used to indicate the criticality of CA Disk events that must be addressed for optimal processing, such as files data set resource shortages or possible component failures.

Delivery approach

CA Services provides a portfolio of mainframe services delivered through CA Technologies internal staff and a network of established partners chosen to help you achieve a successful deployment and get the desired business results as quickly as possible. Our standard service offerings are designed to speed deployment and accelerate the learning curve for your staff. CA Technologies field-proven mainframe best practices and training help you lower risk, improve use/adoption and ultimately align the product configuration to your business requirements.

Benefits

CA Disk manages storage growth by delivering automation flexibility, ease of use, control and data integrity. It helps you optimize your storage resources, control storage costs and maintain desired service levels by archiving infrequently used data sets to less expensive storage media.

The CA Technologies advantage

CA Technologies has 30 years of recognized expertise in robust, reliable, scalable, and secure enterprise-class IT management software. CA Disk is a key component of the Mainframe 2.0 initiative from CA Technologies to change the way the mainframe is managed forever by helping you maximize the value of our mainframe products and by providing a simplified experience and innovative solutions that deliver value quickly and flexibly.