

CA MICS® Resource Management Tape Analyzer Option

THE CA MICS® RESOURCE MANAGEMENT TAPE ANALYZER OPTION (CA MICS TAPE ANALYZER OPTION) PROVIDES YOU WITH DATA INTEGRATION INTO CA MICS® RESOURCE MANAGEMENT (CA MICS) FOR RESOURCE MANAGEMENT DATA ASSOCIATED WITH BOTH TAPE LIBRARY MANAGEMENT (TLM) SYSTEMS AND VIRTUAL TAPE SUBSYSTEMS (VTS).

CA MICS IS A COMPREHENSIVE IT RESOURCE UTILIZATION MANAGEMENT SYSTEM THAT HELPS YOU FULFILL THE INFORMATION NEEDS OF YOUR ENTERPRISE IT INFRASTRUCTURE. CA MICS HELPS YOU SATISFY YOUR FINANCIAL, STORAGE, CAPACITY PLANNING, SYSTEM PERFORMANCE AND RESOURCE MANAGEMENT CHALLENGES. DATA ANALYZERS PROVIDE A VEHICLE TO COLLATE AND MAKE SENSE OF THE AVAILABLE DATA, AND THEN PROVIDE IT TO CA MICS.

Overview

Tape media continues to play a critical data storage role in today's IT environments. Tape infrastructure can also be a major expense, and if not properly managed, can disrupt and degrade IT operations.

Increasingly, tape management is critical for ensuring disaster recovery, managing risk and reducing data center costs.

The CA MICS Tape Analyzer Option transforms raw tape data into actionable information, supplying technical and business units with the metrics they need to efficiently and effectively utilize IT resources.

Benefits

Having actionable information at your fingertips is critical to success in your business. CA MICS manages, transforms and presents data to satisfy the myriad needs of your organization. The CA MICS Tape Analyzer Option adds critical tape data to the CA MICS database, helping you manage the capacity and performance of your tape subsystems in a cost-sensitive manner. This information is critical to ensuring availability and integrity of tape data to your business applications.

The CA Advantage

CA MICS is the most comprehensive and scalable resource utilization management system available. As an integration component of CA MICS, the CA MICS Tape Analyzer Option gives you a total view of all of your tape resources. Together, these solutions allow you to manage user performance, plan for future capacity, control storage demands — all with easy access to your data.

CA MICS is part of CA's Enterprise IT Management (EITM) vision, which is to help you unify IT and simplify the complex computing environments across your enterprise.

CA MICS Addresses the Challenge of Resource Management

IT organizations are required to deliver ever-increasing levels of system availability to support the demands of the business. At the same time, user access to your systems places variable and increasing demands on IT resources. Resource capacity planning helps ensure that you have the resources you need, when you need them; running short can have devastating impacts on your business. Even with enough capacity, performance problems alone can result in lost customers, fines and penalties.

Enterprises are also under continuous pressure to control costs and improve profitability. When requesting additional capacity, IT organizations have to justify the cost. Having immediate access to the right information is critical to preparing an accurate capacity plan and establishing cost justification.

Mapping business processes to IT services and resources helps enable accurate capacity planning and performance management. You need easy access to historical data to characterize workloads, spot trends and forecast growth, and to understand and resolve performance problems.

The task of managing resource utilization encompasses the entire IT enterprise, which means capturing and analyzing huge volumes of data coming from disparate platforms. Capacity planners and performance analysts can easily be overburdened with the challenge. The solution is an effective IT resource management solution that validates, consolidates, analyzes and manages the data from multiple sources, freeing the technical staff to focus on solving problems and analyzing their systems.

CA MICS Delivers the Answers

CA MICS provides the information required by capacity planners, performance managers and financial administrators. It is a comprehensive, flexible system that enables users to apply standard management practices to IT resource management. Timely, structured, consistent information from CA MICS supports analysis and management of factors such as cost, resource utilization, operational readiness and service level compliance.

CA MICS helps improve operational and capacity management, planning, cost management, responsiveness, decision-making and credibility. With its advanced data querying and web reporting facilities, CA MICS provides answers to on-demand queries and delivers the timely and regular reporting that is needed by IT customers. You can now quickly and easily analyze the key performance metrics of your underlying technology infrastructure and demonstrate the effectiveness of IT.

The CA MICS Tape Analyzer Option Helps You Manage Risk, Reduce Data Center Cost and Recover Data

The CA MICS Tape Data Analyzer Option introduces a new, fully integrated option for collecting and analyzing data from tape library subsystems (TLMS) and virtual tape subsystems (VTS). Enterprise systems management must be inclusive of all resources. Increasingly, the various tape options are critical for helping to ensure disaster recovery, manage risk and reduce data center costs. As such, these resources must be managed, understood and optimized in their own right, and in their role as a component of a business service.

The CA MICS Tape Analyzer Option has been designed in such a way that you can install and use the features that are appropriate for your unique configuration. It contains two independent processing components in one product. The first component is referred to as TLM and is used for resources associated with traditional Tape Library Management systems. It can be used in environments that have the most popular tape management systems: CA 1, CA TLMS and IBM RMM. The second component is referred to as VTS. It can be used in environments that have installed a Virtual Tape Subsystem and supports both IBM VTS and StorageTek VSM.

One or both of these components can be used, based on the needs of your environment.

TLM Component Capabilities

The TLM Component provides data integration and reporting capabilities that aid in the management of tape library managed volumes and data sets in these areas:

- **Tape Data Set Management** The component files provide all the information you need for tape data set analysis, including frequency of access, cartridge utilization and more. This helps you decide between tape and disk for your storage needs.
- **Cost Accounting** The information in the component Tape Data Set file can be used for tape data set media occupancy cost accounting. Customization is provided through an exit to allow correlation of account codes to data sets. Use the standard interface to the CA MICS® Accounting and Chargeback Option to enter rates to generate charges for tape data set based on use of the space by hour.
- **Capacity Planning** Knowing the capacity demands of scratch tapes, cartridges and other metrics can help you manage storage proactively.
- **Performance Management** The CA MICS Tape Analyzer Option provides information that allows you to examine and analyze how tape performance impacts workload performance. The ability to identify and correct these types of problems significantly improves both system performance and the level of service provided to system users.
- **Management Reporting and Service Policy Creation** You can create management-level reports and one-page summaries that compare actual performance against proposed service level objectives, helping you create valid policies. After, you can track policy compliance with the same reports.
- **Security** For compliance, it can be critical to track and report on tape data set encryption status. This information can help ensure the privacy and safety of your tape data.

The major features of the TLM Component can be grouped into three categories as described below:

TMCC COLLECTOR The collector is used to scan tape management system catalogs and builds a data file containing tape data set and volume information. The collector is generally executed daily and provides the raw data input for the TLM Component daily update step. Since all tape management systems have basically the same measurements, a generic file structure is used to represent tape data from any of the underlying tape management systems. This makes it easy to migrate from one to the other, without losing essential data. Supported tape management systems are:

- CA 1 Tape Management System (release 5.5 or higher)
- CA Dynam/TLMS Tape Management (release 5.5 or higher)
- DFSHS/MVS Removable Media Manager (RMM) at z/OS 1.4 or higher

FUNCTIONALITY AND FLEXIBILITY A variety of user exits exist to support tailoring of the data collected. You also have the flexibility to use your own site-specific categorization to group data. An account code routine, TLMACCT, is used to assign organizational ownership to tape data sets. In addition, the collector transforms cryptic encoded values used by the tape management system into information that you can read. All data is scanned to ensure that duplicate data is eliminated.

INTERFACE CAPABILITIES All CA MICS database files are summarized in the same way across all products, allowing you to combine readily any data you desire from the tape component and any other component.

VTS Capabilities

The VTS Component provides data integration and reporting capabilities that aid in the management of virtual tape subsystems in these areas:

- **Virtual Tape Cache Management** DASD cache buffering is key to VTS performance, and as such, it is necessary to be able to monitor cache performance and fine-tune it. The data collected gives you the information you need to make smart cache management decisions.
- **Virtual Tape Volume Management** How do you decide which files belong on virtual tape? The VTS Component offers a profile of virtual tape volumes, retrieval patterns, size and longevity to make those critical decisions.
- **Virtual Tape Performance Analysis** Managing performance requires the statistics that the VTS option provides: day-to-day performance metrics, throughput data and bottleneck detection. You need to be able to make sure that the physical tape drives can keep up with the demands of a virtual tape subsystem.
- **Capacity Planning** Trending and forecasting is available at the higher time-span VTS files, permitting forecasting and trending of key capacity metrics. This allows you to take action before performance degrades.
- **Management Reporting and Service Policy Creation** You can create management-level reports and one-page summaries that compare actual performance against proposed service level objectives, helping you create valid policies. After, you can track policy compliance with the same reports.

The major features of the VTS Component can be grouped into two categories as described below:

FUNCTIONALITY AND FLEXIBILITY A variety of user exits exist to support tailoring of the data collected. In addition, encoded values in tape library data is transformed into information that you can read. All data is scanned to ensure that duplicate data is eliminated.

INTERFACE CAPABILITIES All CA MICS database files are summarized in the same way across all products, allowing you to combine readily any data you desire from the tape component and any other component.

CA MICS Standard Reporting

CA MICS INFORMATION CENTER FACILITY (MICF) MICF is provided as part of the standard base and is a menu-based function that can be used to conveniently access and manipulate the data in the CA MICS database. An extensive library of standard reports makes it easy to deliver comprehensive reporting and to provide templates for new reports. MICF reports are provided out-of-the-box for both tape library management and virtual tape system analysis.

CA MICS Q&R WORKSTATION The Q&R Workstation is now provided as part of the standard base. It provides workstation-based query, reporting, graphing and analysis tools to access information in an on-demand fashion within the CA MICS database. With this tool, you can easily access capacity, performance and accounting information. The Windows user interface dramatically extends the ability to retrieve information from MICS and display it to a broader audience. In addition, the distribution of the information that is retrieved over the Web further extends the ability to deliver information to a vast audience of information consumers using web browsers.

IBM VTS Performance Overview

This report provides a consolidated view of important IBM VTS metrics. Each of the other IBM VTS reports delivered with this CA MICS option focuses on a particular area of the virtual tape system, such as physical tape drives, cache, or virtual mounts. This overview report provides a consolidated set of critical performance metrics that quantify the performance, throughput and constraining factors such as throttling.

STORAGETEK VSM VIRTUAL TAPE MOUNT REPORT The StorageTek VSM Report is created from measurements in the CA MICS Virtual Tape Volume Mount Activity file. The report displays the number of scratch and specific mounts requested by the systems that are attached to the StorageTek VSM. Most importantly, the report displays the hit percentage for specific mounts and the delay in satisfying the mount when a Virtual Tape Volume has to be recalled from a physical cartridge.

TLM Component Sample Reports

TAPE VOLUME SUMMARY REPORT This report generates a summary report for each tape library processed by the TLM Component. The report shows overall tape volume usage and scratch tape availability for each Volume Group. Volume groups are a value added feature of the TLM Component where the overall tape library volumes are organized into separate groups for improved management and reporting. For example, virtual tape volumes are assigned to a different volume group than real tape volumes. This makes sense because the management policies and usage characteristics are very different for virtual tape as compared to real tape. The summary report also reports on interesting volume usage, age, and duration since last used for each volume group.

Tape is such an integral part of the storage subsystem and it must be managed as closely as all other key resources. The performance of many business applications is dependent on reliable and responsive access of tape data sets.

The CA MICS Resource Management Tape Analyzer Option Helps Ensure VTS and TLMS Service Level, Capacity and Availability Management

As tape becomes increasingly important to business applications, the performance and capacity management of the two tape subsystems (VTS and TLMS) becomes a factor in providing acceptable service to your customers. It is also vital to manage costs and exploit effectively all of the resources that you currently manage. As an integration component of CA MICS Resource Management, the CA MICS Tape Analyzer Option gives you an enterprise view of all system resources. This allows you to make cost-conscious and prudent management decisions while helping to ensure service levels.

CA MICS RESOURCE MANAGEMENT TAPE ANALYZER OPTION — TWO PRODUCTS IN ONE

PRODUCT	FUNCTION	FEATURES	BENEFITS
CA MICS® Resource Management Tape Analyzer Option	Provides IT management information for both tape management systems and virtual tape subsystems in separate components	<ul style="list-style-type: none"> • Capacity Planning • Performance Management • Management Reporting • Service Policy Creation and Enforcement • Data integration with other CA MICS components 	<ul style="list-style-type: none"> • Proactive buying decisions saves money and performance • Well-performing tape systems contribute to optimized service delivery • Enterprise management requires targeted reporting to make decisions • Make and keep viable service level agreements • Have an enterprise view of your data with the ability to correlate and integrate any component with another

The CA Advantage

CA offers the kind of comprehensive resource management tools that capacity planners, performance analysts and finance people need. With deep knowledge of mainframe resources and enterprise system data, and a clear understanding of the business challenges you face, CA designed the CA MICS product family to meet and exceed those requirements. These easy-to-use products allow you to reap immediate value from your investment. With easy set-up and customization, and the flexibility offered with Q&R reporting, achieving measurable service level improvements with limited people resources is possible. The CA MICS family offers you an enterprise solution.

CA MICS is an integral part of CA's Enterprise IT Management (EITM) initiative. The goal of EITM is to help you to unify IT and simplify the deployment, use and integration of your management solutions, tasks and processes to make sure that your business is fully supported.

EITM provides comprehensive, integrated management of every aspect of IT, in the context of your particular business. The result of this integrated solution takes enterprise systems management to a whole new level — the whole is much more than the sum of the individual products and solutions. Your goal is to support your business while managing costs, reducing risks and improving service — EITM is the answer to this challenge.

Next Steps

As an integration component of CA MICS Resource Management, the CA MICS Resource Management Tape Analyzer Option helps you manage all your tape subsystems while contending with increasingly stringent service levels, tighter budgets, lower risk tolerance and fewer people. CA MICS helps you turn raw data into actionable information. You can centralize and manage this data, mining it to improve service levels, plan for the future and communicate IT value and performance to your organization. This integration gives you the benefits of having a single resource management solution that offers significant value to all parts of your company.

To learn more, and see how CA software solutions enable organizations to unify IT and simplify the management of complex computing environments for better business results, visit www.ca.com/mainframe/resourcemanagement.