Installation and User Manual

VSAM Management

VSUM-PC

Graphic VSAM Analysis on a PC

CSI

INTERNATIONAL

Version 2.0

VSUM-PC is an MS-Windows based product which uses z/OS VSAM LISTCAT input to provide various displays and reports, highlighting files with most activity by several measures, or analyzing individual files, or showing VSAM space utilization. (User must provide LISTCAT print file transfer.)

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Table of Contents

BIM-VSUM/PC

Overview

Overview

The BIM-VSUM/PC Tools are a collection of Microsoft Windows based applications designed to provide powerful analysis and file design capabilities for IBM Mainframe based VSAM files. The programs use a standard VSAM IDCAMS utility LISTCAT produced on the host system as input. The applications extract and enhance the standard VSAM Catalog information and store that data in one or more PC databases. The applications provide various rapid query and reporting functions to greatly enhance the productivity of VSAM file analysis and maintenance. The PC databases are created in Paradox database format so that the information can be easily read by spreadsheet, reporting, and database packages, for customized analysis projects.

The BIM-VSUM/PC Toolset includes:

- **VSAM LISTCAT Extract** : which reads the standard VSAM LISTCAT output files to produce the PC databases utilized by the other tools.

- **VSAM Catalog Scan** : allows the stored VSAM Catalog information to be quickly sorted by various key statistics, like most CI Splits or most EXCPs, to locate the files that may require additional analysis. Any VSAM file may be selected for detail analysis including modeling possible changes to the file's attributes. Graphic representation of key information, such as VSAM Control Area and Control Interval, help you plan for optimizing VSAM performance.

- **VSAM File Manager** : provides a unique alternative method for viewing the stored VSAM file information, modeled after the Windows File Manager. The VSAM qualifiers that make up the VSAM file name are treated like multiple level directories. Like the Catalog Scan application, any VSAM file may be selected for detail analysis including modeling possible changes to the file's attributes. The user may select one of the available search criteria to filter the list of VSAM file names.

- **VSAM Space List** : this application provides quick access to the VSAM managed DASD space associated with VSE/VSAM Catalogs, including printing of standard space utilization reports.

- **VSAM Top File Reports**: provides a quick way of obtaining standard reports from the stored VSAM file information, which may be used as 'to do' lists for VSAM Administrators or systems programmers. The reports create special subsets of the database that can be stored in other standard formats and utilized for custom analysis.

- **VSAM Top File Charts**: allows the user to view standard charts or graphs from the stored VSAM file information. The charts provide a unique perspective of the selected VSAM statistics. This application is designed with the same user interface as the Top File Reports applications, but to create viewable charts rather than printed reports.

- **VSAM Model Definition**: provides a fast path to the VSAM modeling functions also available in the other applications. This helps the user to make accurate estimates of new VSAM file requirements, prior to file definition and loading.

The **BIM-VSUM/PC Tools** provide a variety of methods for reviewing the inventory of VSAM files in one or more VSAM Catalogs. There are several reasons why it is important to review the VSAM Catalog detail information. The VSAM definition options for many files were selected a number of years ago. Changes in the Disk capacity and performance characteristics as well as changes in the operating system software may require adjustment of the VSAM file options to improve overall performance. Many VSAM files were defined using 'standard' definition options, sometimes provided with vendor software and were never optimized for the unique requirements of an installation. The BIM-VSUM/PC Tools were designed to help you locate the VSAM files that may benefit from changes to improve the efficiency of an operational mainframe system. The tools can also be used to help plan the requirements for new or expanded VSAM files. The BIM-VSUM/PC Tools are a set of Windows applications that can be installed in a few minutes on any workstation that supports the 16-bit Windows 3.1 API, including Windows 95 and OS2 systems with WINOS2. There are no mainframe programs to install or configure. The only requirement is that some file transfer capability be available to move the IDCAMS LISTCAT output file to the workstation for processing.

The first step is to get the VSAM Catalog information to the Windows PC were the analysis will be performed. The BIM-VSUM/PC Tools use the standard IDCAMS **LISTCAT ALL** as input. The LISTCAT output from one or more VSAM Catalogs should be downloaded to the PC where the VSAM Tools were installed. The downloaded LISTCAT files are the input to the **VSAM LISTCAT Extract** application. This program reads the VSAM Catalog information and saves the detailed file information in Paradox formatted relational databases on the workstation. These databases can be used directly by standard spreadsheets and database query tools. The BIM-VSUM/PC Tools provide specialized functions for querying and viewing the VSAM Catalog information. The information from many VSAM Catalogs can be stored in a single VSAM Object database to help provide a broad view of an installation's VSAM files. The best time to collect the LISTCAT data is after the batch or online processing cycle, but before any daily reorganization jobs. This will provide the most useful statistical content for the VSAM files. For VSAM LISTCAT Extract program can also produce a VSAM Space Database for VSE/VSAM users to help review the VSAM defined DASD space utilization.

The **VSAM Catalog Scan** is a good first tool to begin analyzing an installation's VSAM based file inventory. The application uses a VSAM Object Database as input The program was designed to allow the user to view either a single catalog or all VSAM catalogs in a spreadsheet like grid that could be scrolled to scan for possible problems or opportunities for improvement. The lists can be quickly sorted by various key data elements, like number of VSAM accesses, CI and CA split activity, and file size. If a VSAM file contains some interesting or unusual characteristic, you can double-click on any data element to get a detailed view of that file. This detailed view allows the user to perform 'what if' changes to the VSAM file's options and includes special graphical views of the VSAM Control Interval and Control Area. There is also a VSAM Option Wizard that will step the user through a sequence of questions that will be used to suggest a set of VSAM options. The primary usage of the Catalog Scan program is to browse the catalog statistics in search of a new problem, but it can also be used to obtain a more complete view of a single file that has some suspected problems.

The **VSAM Top File Charts** application is another way to take a quick look around for a mainframe system's most important VSAM files. The user can choose any of the ten standard selection criteria to view the files that are in some respect outstanding; like most unused DASD space, most VSAM requests or most DASD extents. The top 10 to 50 files will be displayed using three-dimensional Bar Charts. The Chart view allows the user can choose to skip the first files so that the files with extremely high statistics do not make the rest difficult to view. The graphical nature of this application can provide a unique perspective when viewing some statistics. For example, when the number of CI splits is charted with the total number of records added, it shows the user how often the splits occur in relation to overall insert activity. Many mainframe systems have a few very large or highly active VSAM files that can have a significant impact on the resource usage.

The **VSAM Top File Reports** application was designed for the VSAM administrator that likes to work from a small printed 'to do' list. There are ten standard reports to choose from. The application generates special report databases, containing the subset of files for that report. These reports can be printed, viewed, or exported into one of the available spreadsheet or database formats for customized analysis. By limiting the size of the reports to the top 50 to 200 files based on a user selected criteria, like most I/Os, most CA splits, or most DASD extents, the program can minimize the time required to get the latest lists of VSAM files that might require attention.

The **VSAM File Manager** application was designed to give VSAM Administrators a unique new way to view the VSAM Catalog statistics, similar to the familiar File Manager application for Microsoft Windows. In many systems the VSAM file names contain high level qualifiers that are used to group files from applications together, for example production payroll files might begin with PROD.PAYROLL. The VSAM Visual File Manager views the high level qualifiers of the VSAM file names as a tree structure, with each qualifier appearing as a file folder which can be expanded or collapsed to view the next level as well as the files sharing the common names. The tree structure can be viewed either with the VSAM Catalog as the first folder or with all catalogs combined into a single list. This can help to review all the VSAM files from one application even though the files may be spread across multiple VSAM Catalogs for improved performance. The list of VSAM files with the currently selected high level qualifier is displayed in a scrollable window. Detailed file information, including Model Definition, can be viewed simply by double clicking on a particular file name. A powerful File Search capability allows the selection of one of a number of search criteria to filter the number of VSAM files displayed. Some of the predefined filters involve combinations of catalog data. For example you can select files with more Index I/Os than Data component I/Os, or files with free space defined that have not had any new records added.

The **VSAM Space List** application was designed to help VSE/VSAM users to manage the DASD space owned by the various VSAM Catalogs. The application provides a spreadsheet style to view the VSAM Space related data. Two windows are used to display the Catalog information, one lists the VSAM Spaces for each Catalog, while a second window shows the VSAM files which have extents in the currently selected VSAM Space. This application also produces two standard printed reports, which can be summarized either by DASD volume or by VSAM Catalog. The VSAM administrator or systems programmer can use this application to periodically review the predefined VSAM spaces to avoid running out of space when expanding current VSAM files which could cause an unplanned outage for a critical online system. A Chart option is available to visually locate the volumes with the most available space for adding new VSAM files as well as seeing which VSAM volumes are nearing their currently defined capacity limits.

The **VSAM Model Definition** application is simply a fast path to the Model Definition capabilities already available in the other applications. This allows for quick, accurate planning for new VSAM based files. This modeling includes DASD space estimates for various device types and allows the user to see all the detailed load/reorganization statistics that might affect performance and efficient DASD usage. It is rather common for VSAM KSDS files with longer key lengths to fill up the Index record before all the Data Control Intervals in a Control Area are filled, which leaves unusable data areas and expands the overall size of the VSAM file. The model definition application estimates of how much of each Index Control Interval will be utilized based on key length and other factors to help avoid VSAM files with unusable Control Area space. There are graphical views of the VSAM Control Interval and Control Area, that can be used to understand the current or planned allocation of free space to better match the needs of the applications.

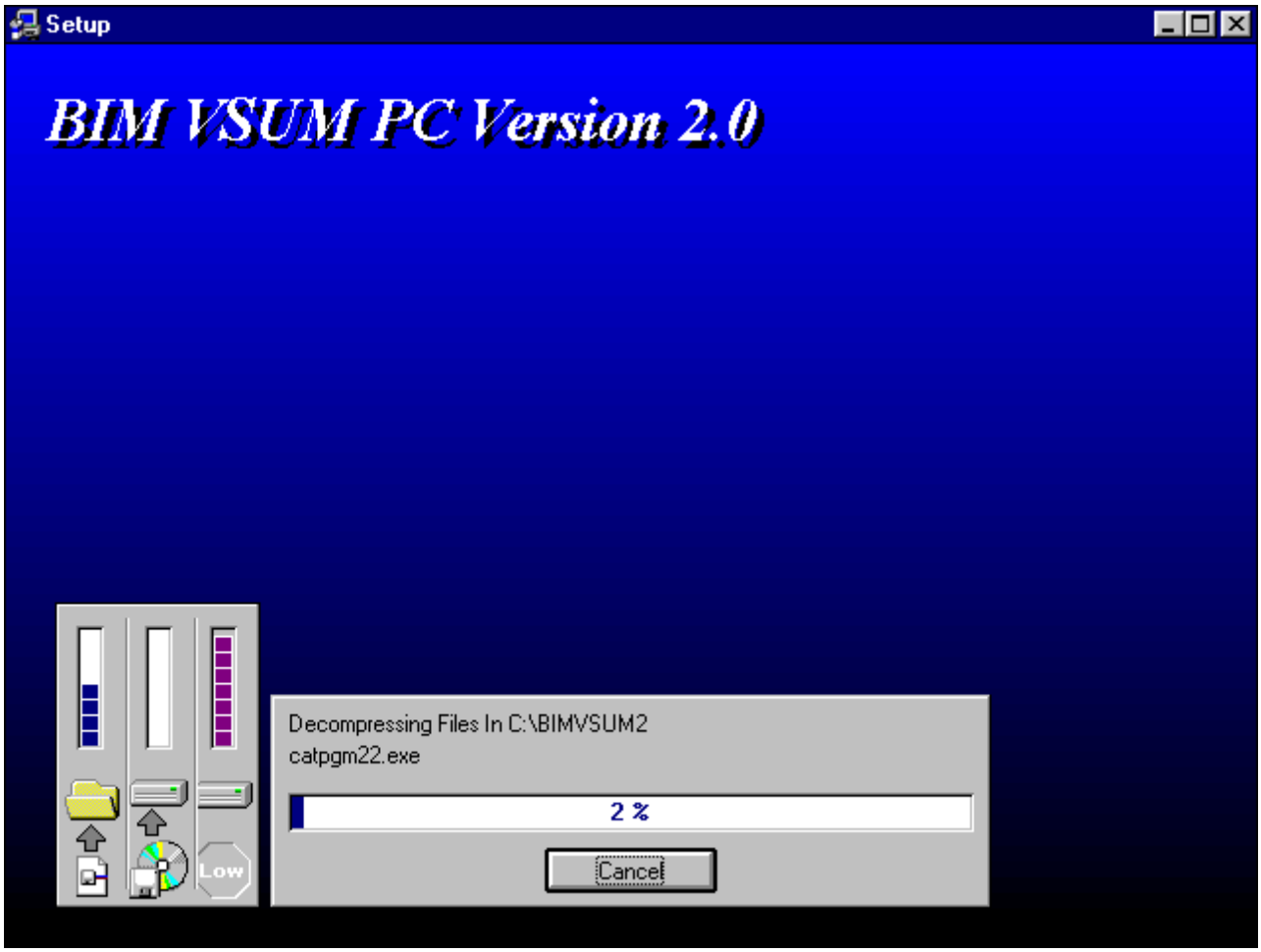
BIM-VSUM/PC

Software Installation

Software Installation Information

The BIM-VSUM/PC Tools, a set of Microsoft Windows based applications, were designed to provide powerful, 'state of the art', VSAM file analysis and design functions for the professionals that create and maintain IBM mainframe VSAM databases.

To begin installing the BIM-VSUM/PC Tools software, insert the CD and follow the on screen instructions. If the Autorun feature is not active on your CD, then run the program x:\SETUP program found on the CD. (‘x’ is the CD drive letter.)



Hardware Requirements

Testing has been performed on Intel 486, and Pentium systems with a minimum of 8 Megabytes of RAM. Tests have shown significant performance benefits from faster CPUs and additional RAM.

Software Requirements

1. The applications have been tested on the following platforms:

   Windows 3.1
   Win OS2 on OS/2 2.1 and OS/2 Warp
   Windows 95 and 98
   Windows NT

2. The BIM-VSUM/PC Tools utilize the **BORLAND** Database Engine (IDAPI) to create **Paradox** formatted databases from the VSAM LISTCAT files used as input. The necessary **BORLAND** software is included and will be installed with the BIM-VSUM/PC Tools.

3. The BIM-VSUM/PC Tools include some standard printed reports that were developed using the **Reportsmith** software. The **Reportsmith** Runtime code will be installed from the supplied installation media.

4. During the Reportsmith Runtime installation process a list of optional database drivers may be selected. The only required database type for the BIM-VSUM/PC Tools is the **Paradox Database** driver.

Host Operating Systems Supported

The BIM-VSUM/PC Tools are designed to process VSAM LISTCAT output from either VSE/VSAM Catalogs from VSE/ESA and VM/ESA systems and also LISTCATS from MVS/ESA or OS/390 ICF Catalogs. There are not separate versions of the applications, based on operating system.

BIM-VSUM/PC

First Time User’s Tutorial

The best way to get started using the BIM-VSUM/PC Tools software is to follow the step by step instructions in this Tutorial section. This will introduce the primary functions and features and help you to learn the various user interfaces used by the VSAM Tools.

VSAM LISTCAT Extract Tutorial

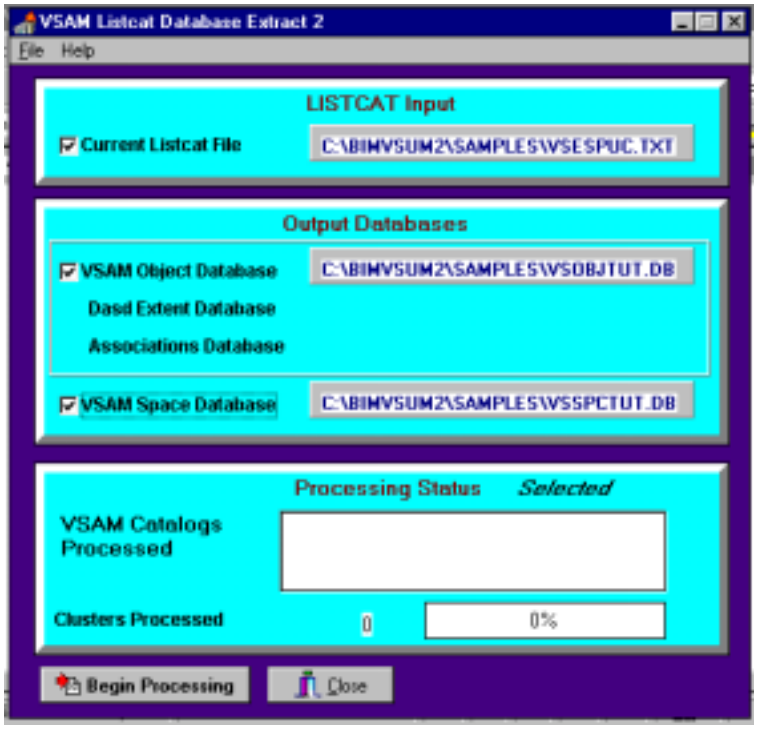
1. Select the **VSAM LISTCAT Extract** application.

2. **Selecting the input file :**
   Click on the Checkbox next to 'Current Listcat File'.
   Locate and select the file VSESPUC.TXT, which is in the C:\BIMVSUM2\SAMPLES subdirectory.

3. **Creating an output Database for VSAM file information:**
   Click on the Checkbox next to 'VSAM Object Database' .
   Click on **Yes** to Create a new Table.
   Type **VSOBJTUT** over the default database name VSOBJ001.
   Click on **OK** to return.

4. **Creating an output Database for VSAM Dasd Space information:**
   Click on the Checkbox next to 'VSAM Space Database' .
   Click on **Yes** to Create a new Table.
   The name **VSSPCTUT** will be the default database name.
   Click on **OK** to return.

5. **Begin Extracting the VSAM Catalog Information from the first input file.**



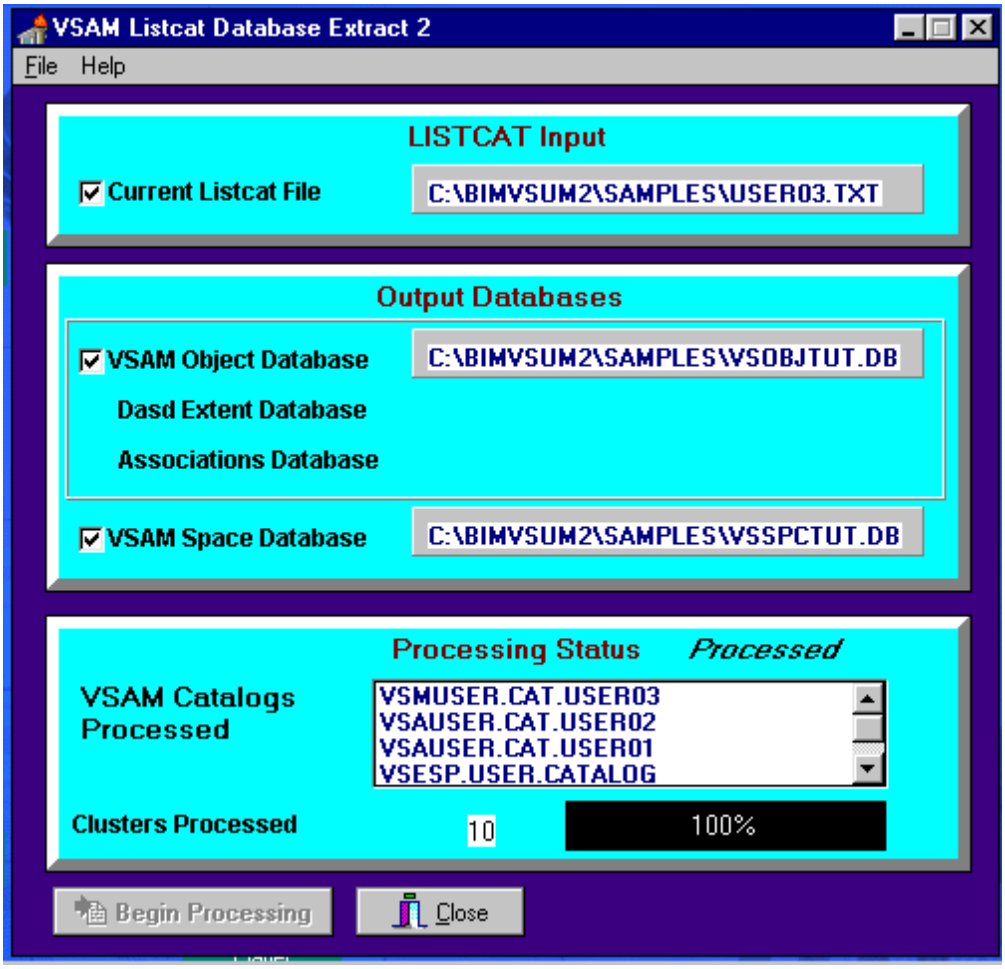
Click on the **Begin Processing** button.

Wait for the Processing status to show '*Processed*'.

6. **Select the next input file for processing**.
   Click on the Checkbox next to 'Current Listcat File'.
   Locate and select the file **USER01.TXT**, which is in the C:\BIMVSUM2\SAMPLES subdirectory.
   Click on **OK** to return.
   Click on the **Begin Processing** button to begin extracting the next VSAM Catalog data.

7. Repeat step 6 for two more input files: **USER02.TXT** and **USER03.TXT**.

   (note multiple VSAM LISTCATs may be contained in a single input file)



8. Click on the **Close** button to exit.

VSAM Visual Catalog Scan Tutorial

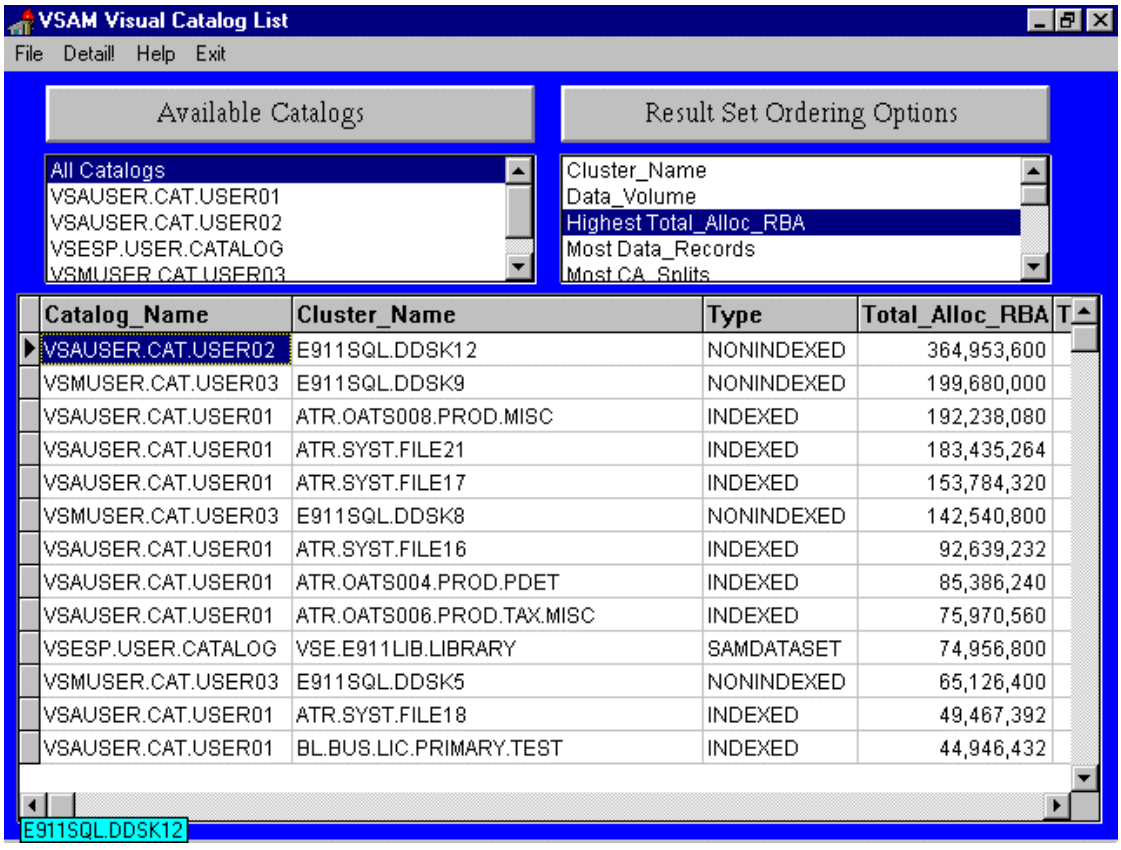
1. Select the **VSAM Visual Catalog Scan** application.

2. **Selecting the input database** :
   Select the VSAM Object Database **VSOBJTUT.DB**
   Click on OK to begin processing.

3. **Scrolling the database grid**.
   Try scrolling to the right using the arrow keys or the Tab key.
   Try scrolling up and down using the Page Down and Page Up keys.
   The Home and End keys may be used to jump to the 1st or last data column.

   (Note Columns may be resized within the grid area. Columns may also be dragged to a new position to ease comparison of data elements.)

4. **Sorting the VSAM files ,** (finding the largest files)
   Click on **Highest Total_Alloc_RBA** under Result Set Ordering Options.

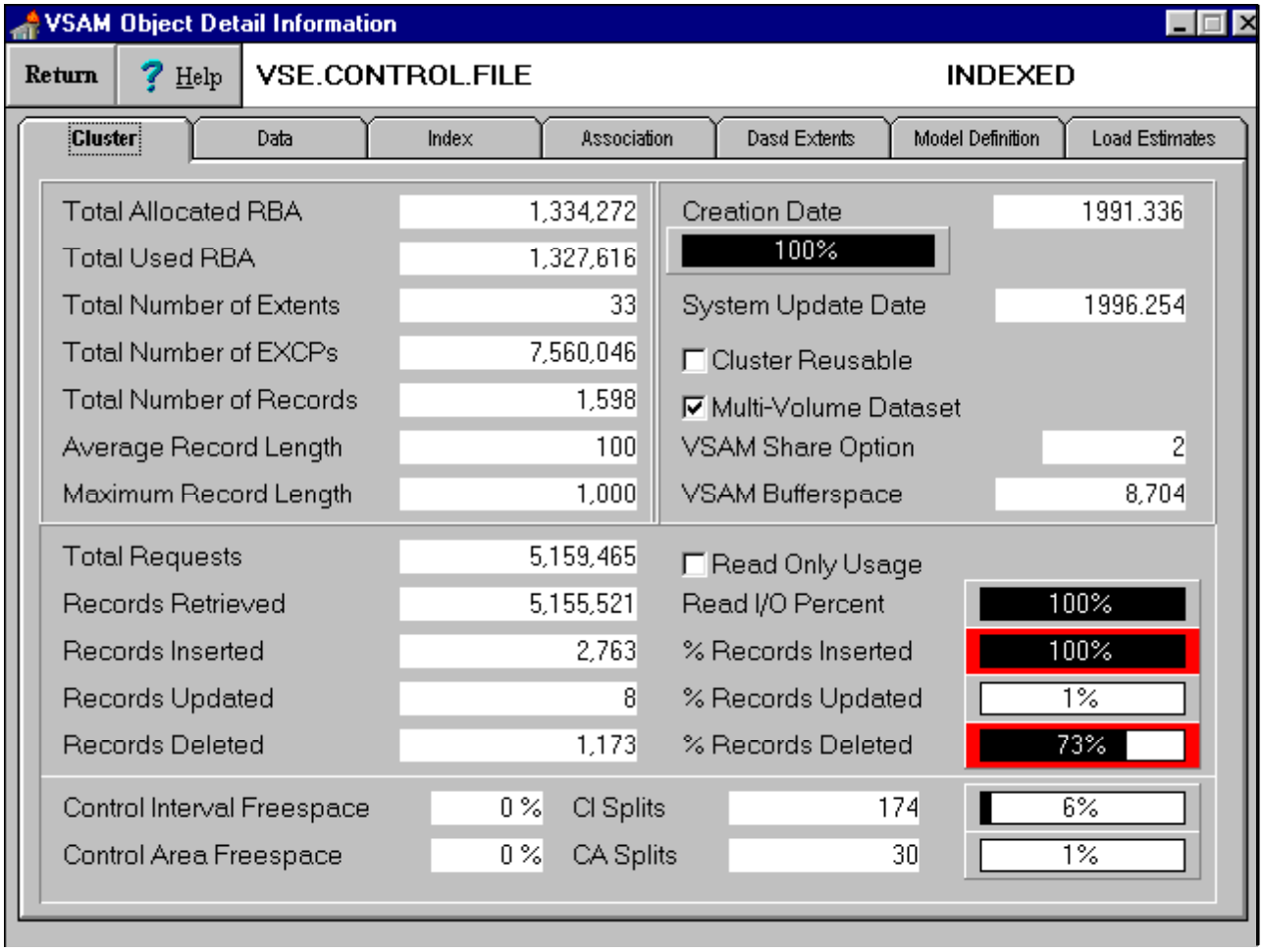


Catalog_Name	Cluster_Name	Type	Total_Alloc_RBA	T
VSAUSER.CAT.USER02	E911SQL.DDSK12	NONINDEXED	364,953,600	
VSMUSER.CAT.USER03	E911SQL.DDSK9	NONINDEXED	199,680,000	
VSAUSER.CAT.USER01	ATR.OATS008.PROD.MISC	INDEXED	192,238,080	
VSAUSER.CAT.USER01	ATR.SYST.FILE21	INDEXED	183,435,264	
VSAUSER.CAT.USER01	ATR.SYST.FILE17	INDEXED	153,784,320	
VSMUSER.CAT.USER03	E911SQL.DDSK8	NONINDEXED	142,540,800	
VSAUSER.CAT.USER01	ATR.SYST.FILE16	INDEXED	92,639,232	
VSAUSER.CAT.USER01	ATR.OATS004.PROD.PDET	INDEXED	85,386,240	
VSAUSER.CAT.USER01	ATR.OATS006.PROD.TAX.MISC	INDEXED	75,970,560	
VSESP.USER.CATALOG	VSE.E911LIB.LIBRARY	SAMDATASET	74,956,800	
VSMUSER.CAT.USER03	E911SQL.DDSK5	NONINDEXED	65,126,400	
VSAUSER.CAT.USER01	ATR.SYST.FILE18	INDEXED	49,467,392	
VSAUSER.CAT.USER01	BL.BUS.LIC.PRIMARY.TEST	INDEXED	44,946,432	

5. **Sorting by another criteria** (most Control Area, CA Splits)
   Click on **Most CA_Splits** under Result Set Ordering Options.

6. **Displaying the formatted Detail Catalog for one file**.
   Find the file **VSE.CONTROL.FILE** in the list of VSAM files.
   Double-Click any column of data within the row for the file VSE.CONTROL.FILE. or click on the Detail menu option.

   The Cluster Page is displayed first.

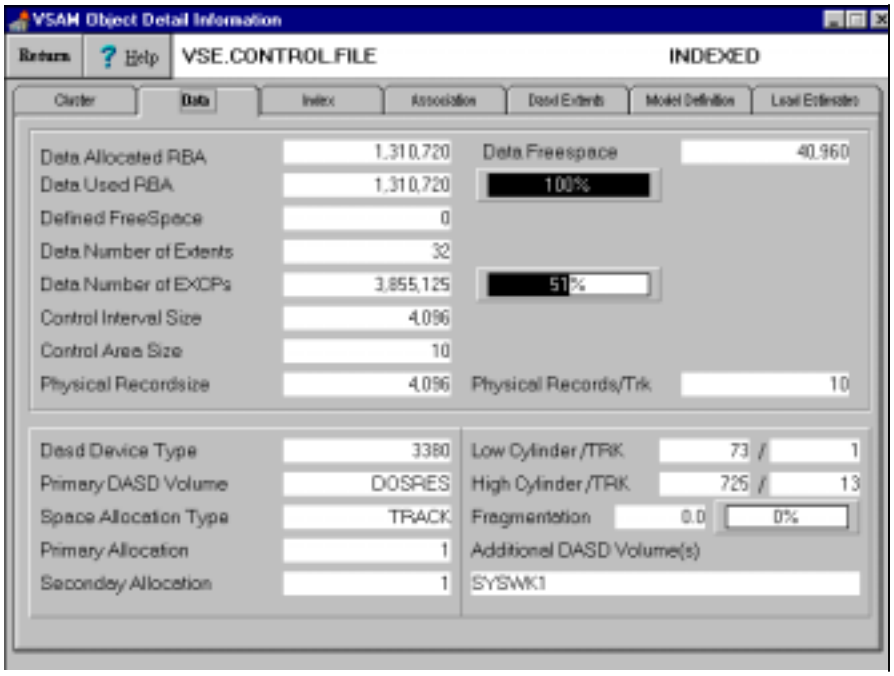


Note the following:

That 100% of the records have been inserted since the file was created.
There have been 2,763 records inserted, with 174 CI Splits and 30 CA Splits.
Approximately 6 percent of the record insertions caused CI Splits.
About 1 percent of the inserts caused CA Splits.

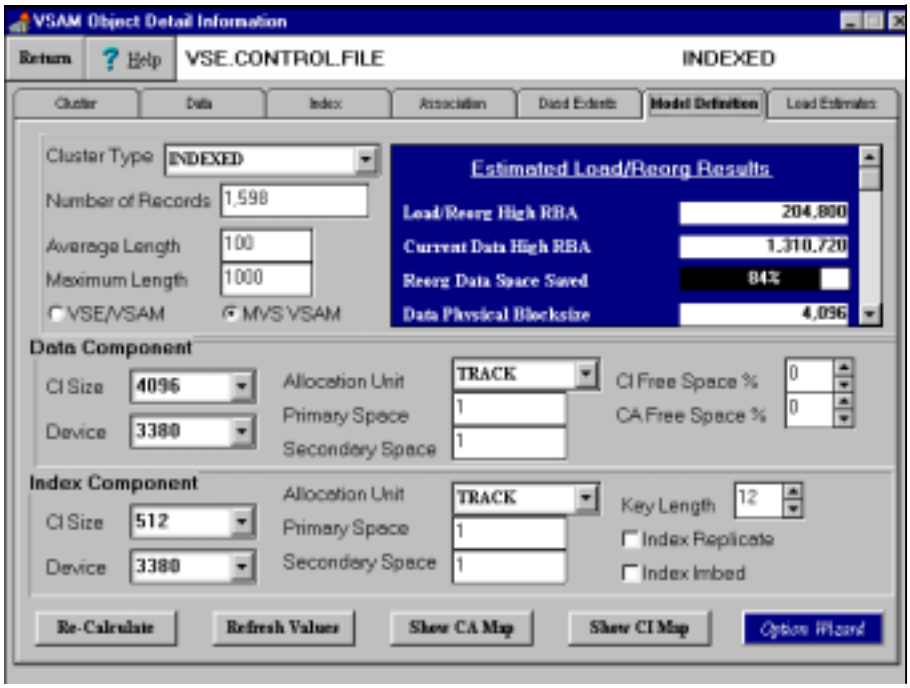
You can also see that the file has 33 extents.

7. Click on the **Data tab** to view information from the Data Component of the file.

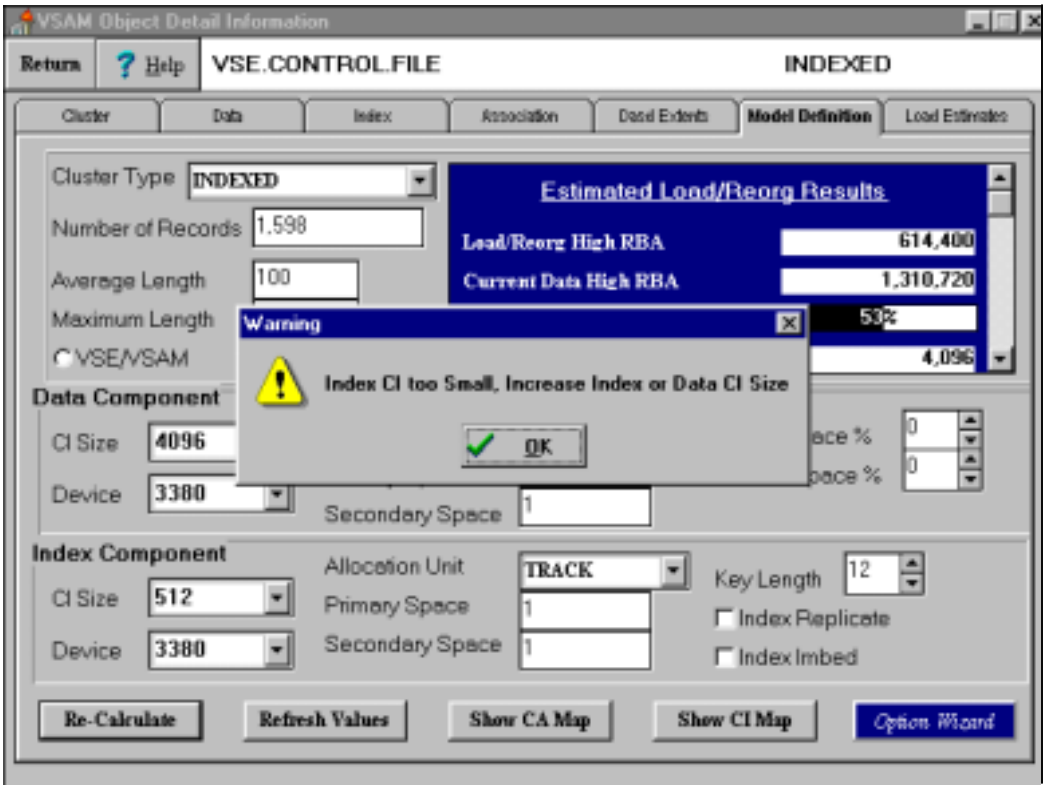


8. Click on the **Index Tab** to view the Index Component detailed information.

9. **Performing file design analysis**.
   Click on the **Model Definition Tab** to begin file design analysis.



Change the allocation unit in the Data Component section from **Track** to **Cylinder**
Press the **Re-Calculate** button.



The warning **'Index CI Too Small, Increase Index or Data CI Size'** is displayed. Changing the allocation to Cylinder caused a larger VSAM Control Area, which requires additional space in the Index record.
Change the CI Size in the Index Component to **2048** using the dropdown list.
Press the **Re-Calculate** button again.

Click on the **Show CA Map** button to display the various sections of the VSAM Control Area.
Click on **Return**.

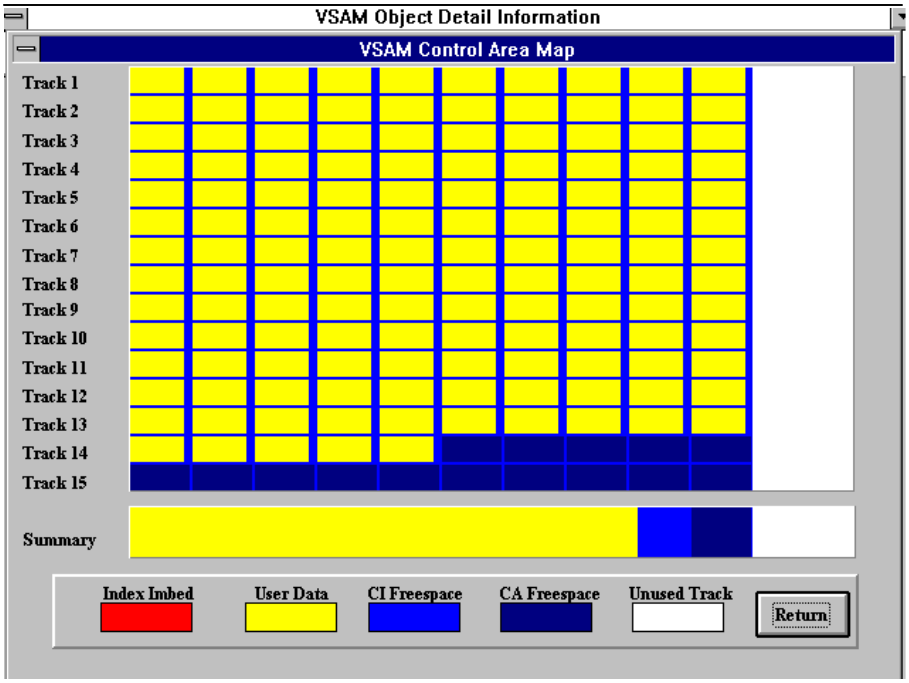
To see the effects of adding free space:
Increase the CI FreeSpace % to 5
Increase the CA FreeSpace % to 10.

Click on the **Re-Calculate** button.

Scroll the window area titled **Estimated Load / Reorg Results** to view an extensive set of statistics relating to loading or reorganizing the VSAM file using the current attributes.

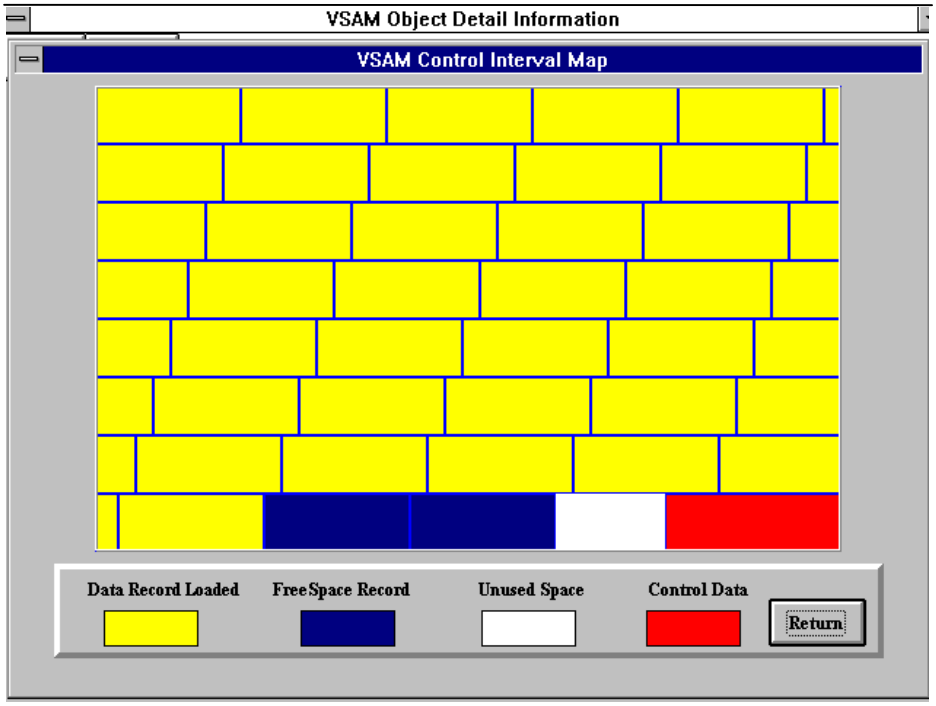
For example using the adjusted options the 'AVG CA Load Percent' is 81%, meaning 81% of the VSAM Control Area will contain user data records..

10. Click on the **Show CA Map** button to display the projected layout of the VSAM Control Area.



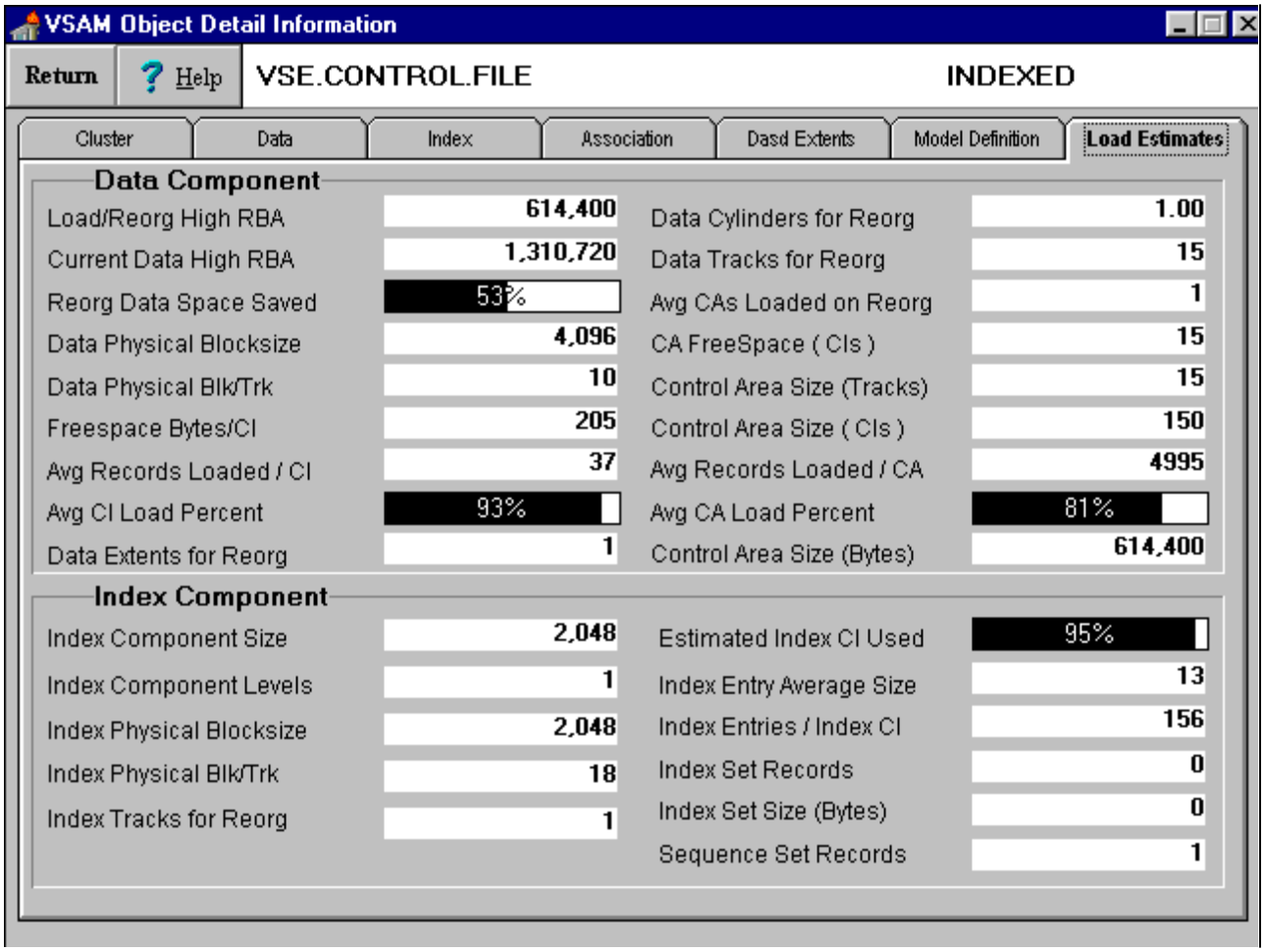
Click on **Return**.

11. Click on the **Show CI Map** button to display the projected layout of the VSAM Control Interval.



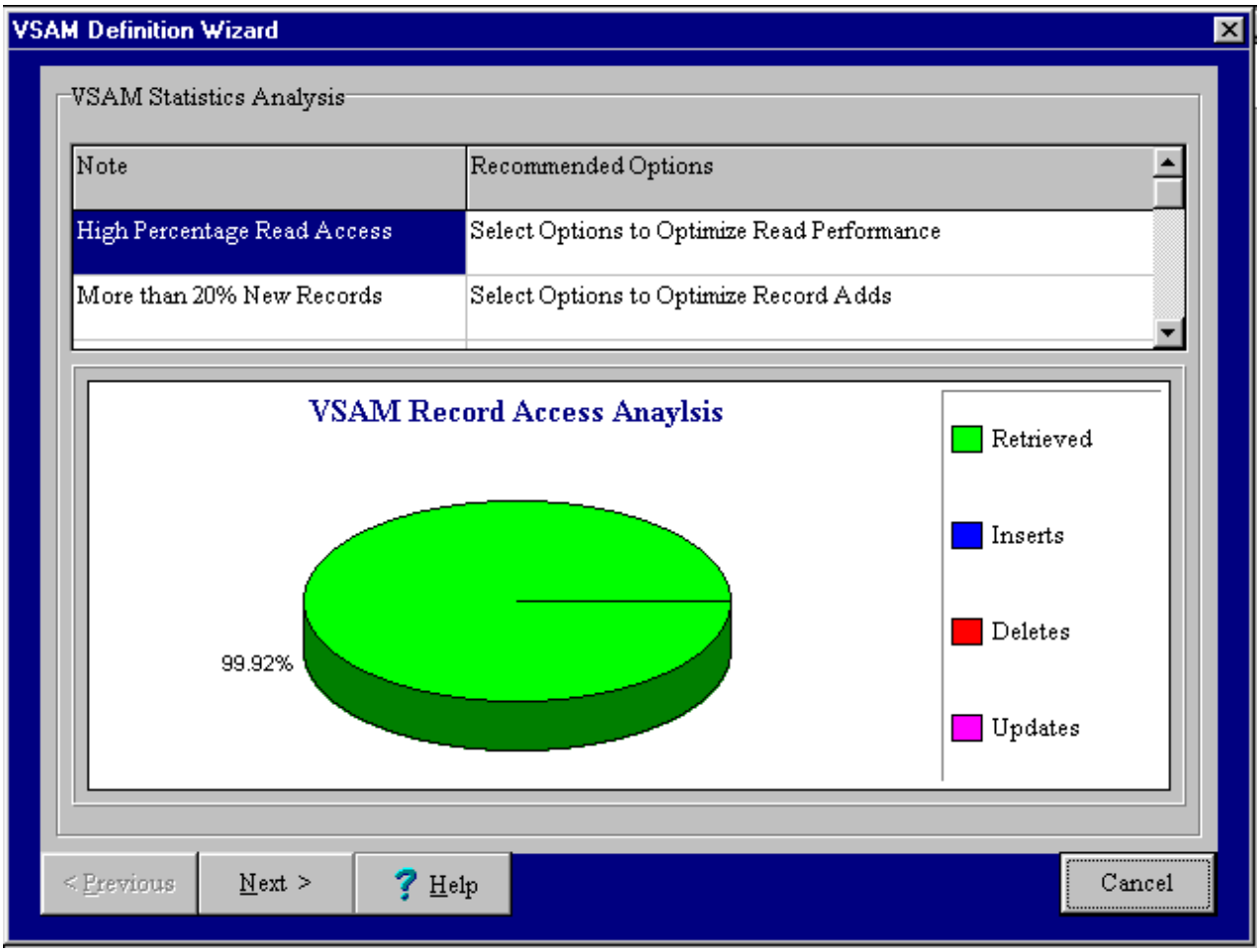
Click on **Return**.

12. Click on the **Load Estimates** tab to view all the same statistics related to Load/Reorg analysis.



13. Click on the **Model Definition** Tab.

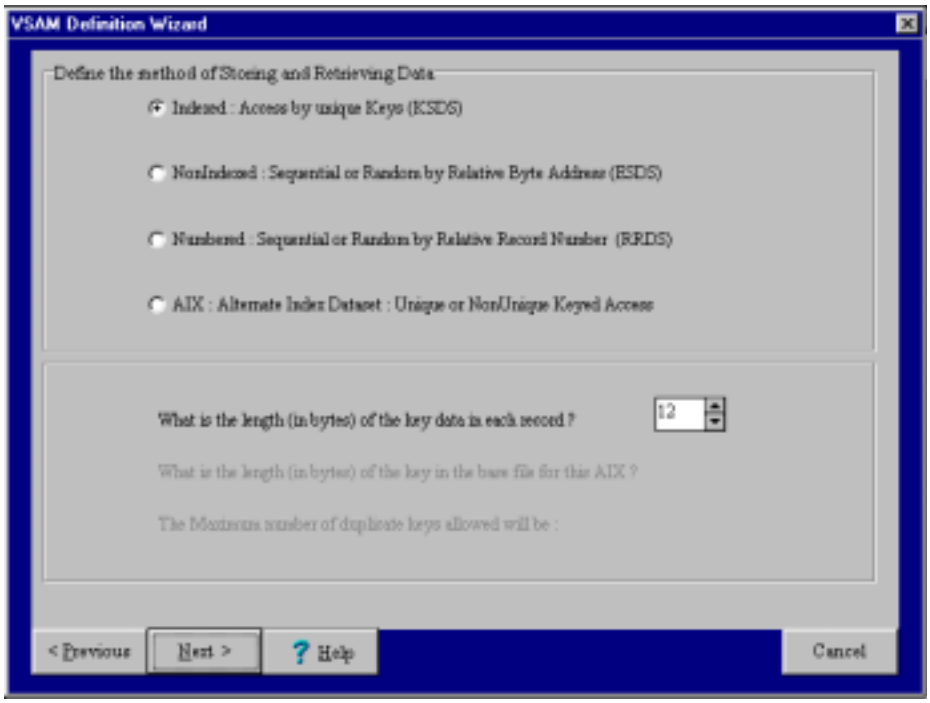
Now Click on the **Option Wizard** Button to invoke the VSAM Option Wizard to get some advice on choosing the VSAM file options.



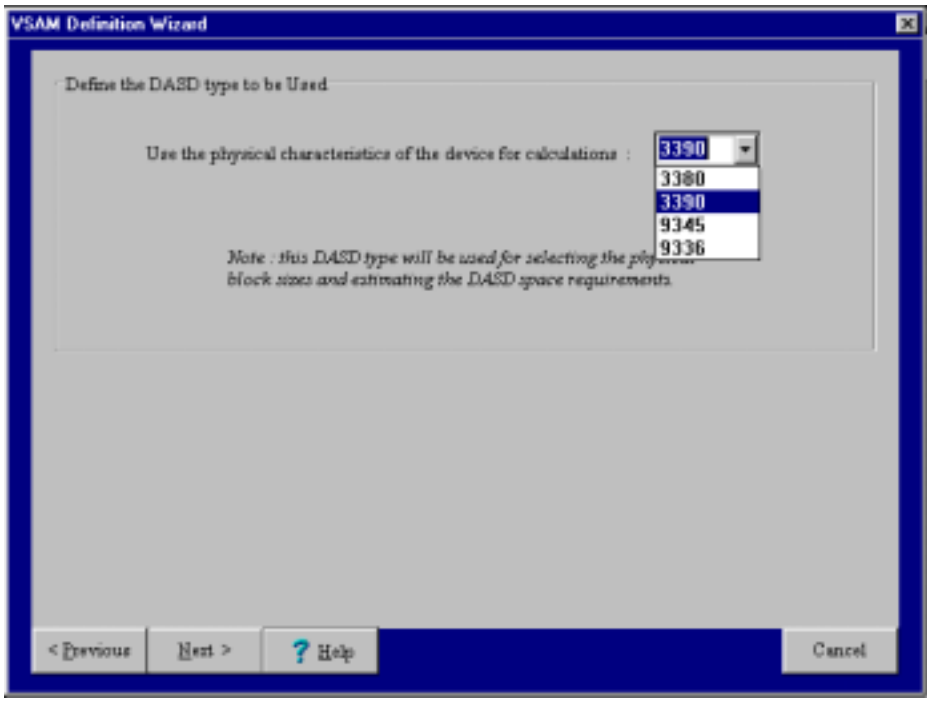
The first step is to check the VSAM Catalog Statistics to see how the current file is being used.

This file has two characteristics, "High Percentage of Read Access", in this case over 99% of all VSAM requests for this file are reads. The file also has more than 20% new records added since being loaded or reorganized last.

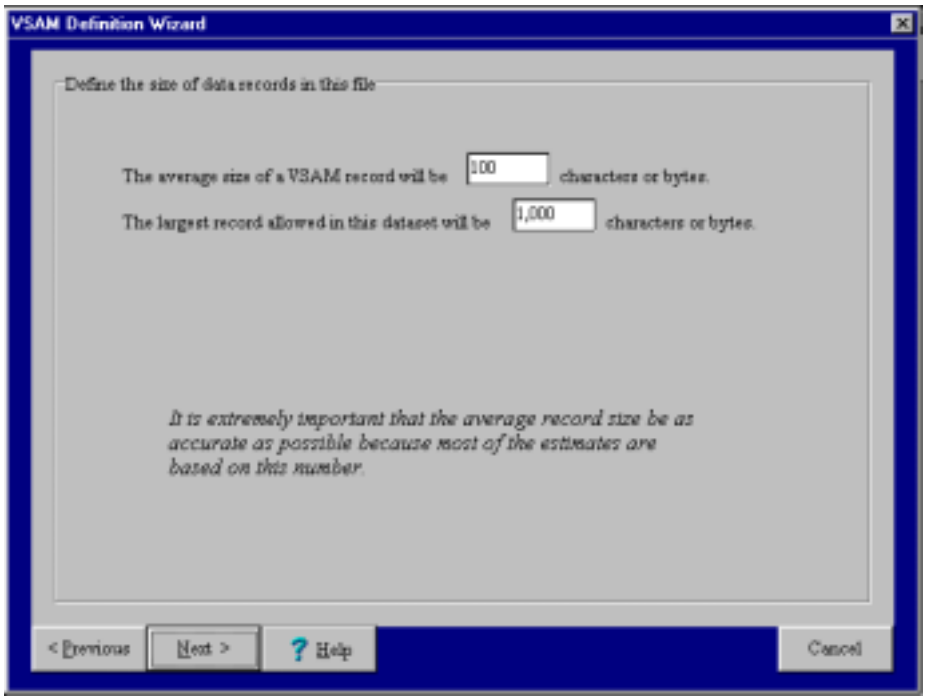
Click on the **Next** button.



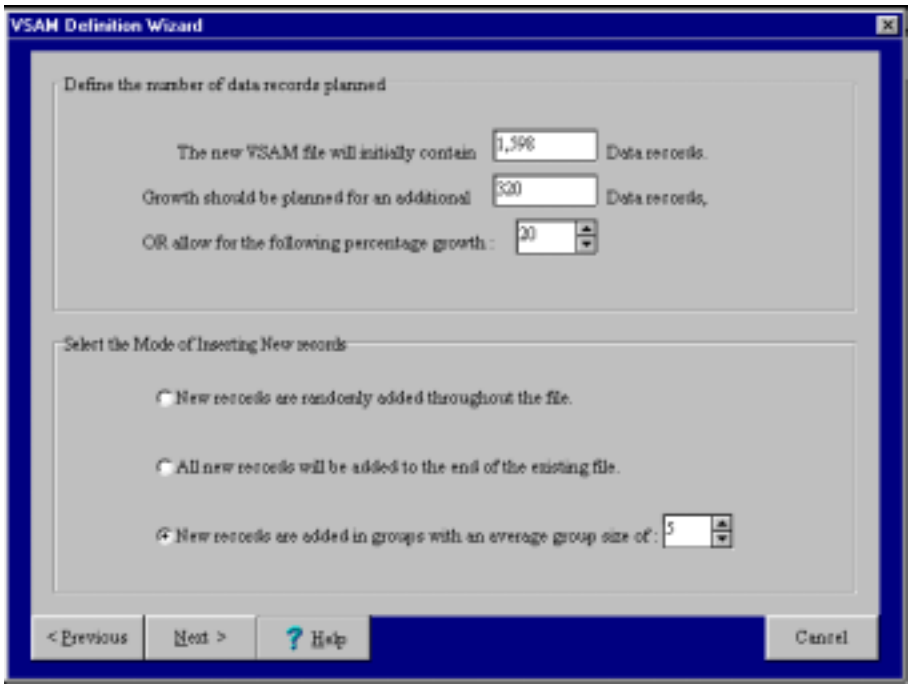
You may change the VSAM file type and key length information or accept the current values.
Click on the **Next** button to proceed.



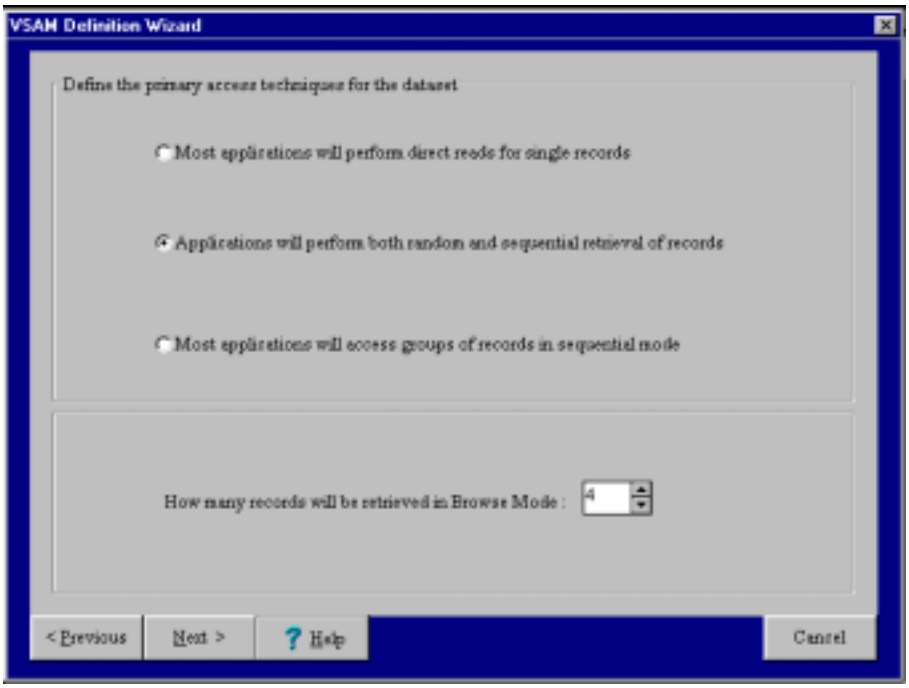
Use the drop down list to change the Dasd device to a 3390.
Click on the **Next** button to proceed.



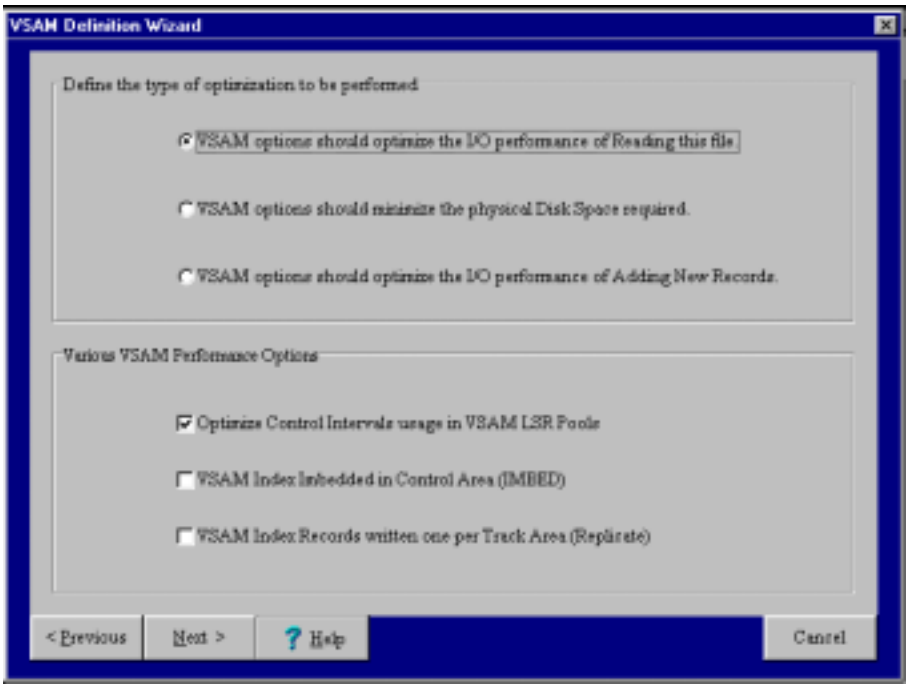
You may change the average and maximum record sizes or accept the current values.
Click on the **Next** button to proceed.



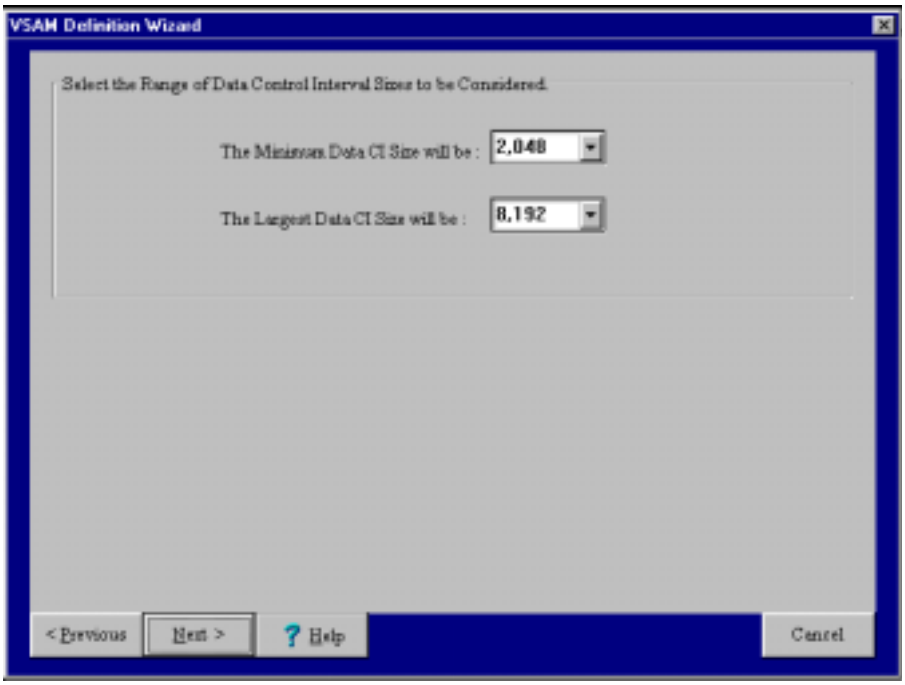
Change the percentage growth planned to **20%.**
Select the option **'New Records are added in groups…'** and set the group size to **5**.
Click on the **Next** button to proceed.



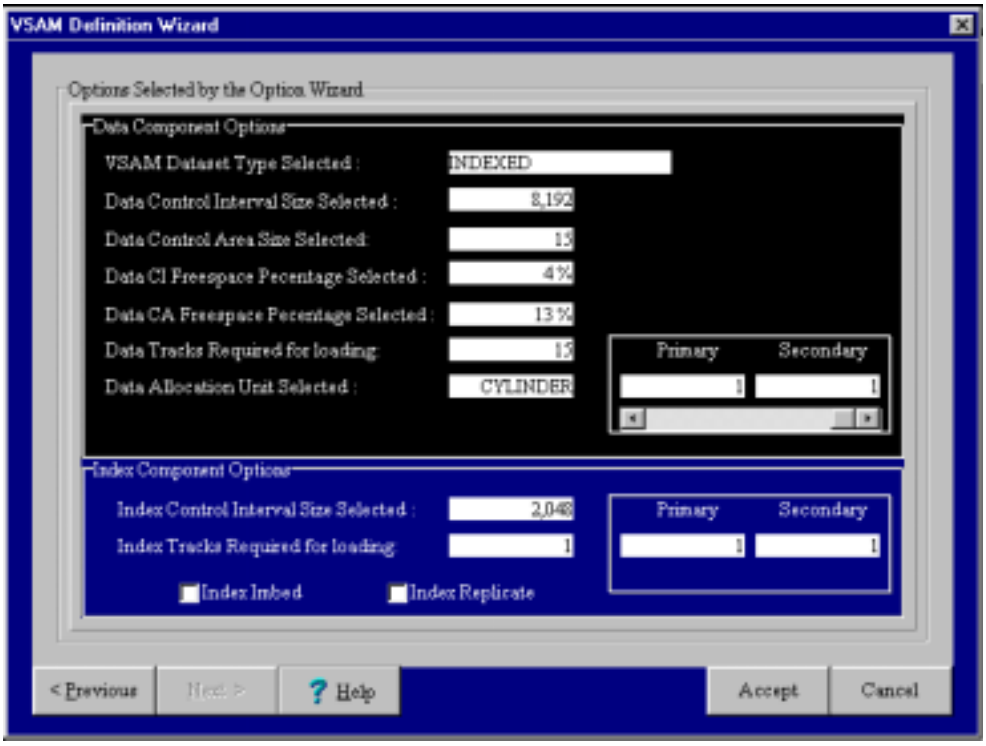
Select the option **'Applications will perform both random and sequential retrieval of records'** and set the number of records retrieved in a typical Browse to **'4'.**
Click on the **Next** button to proceed.



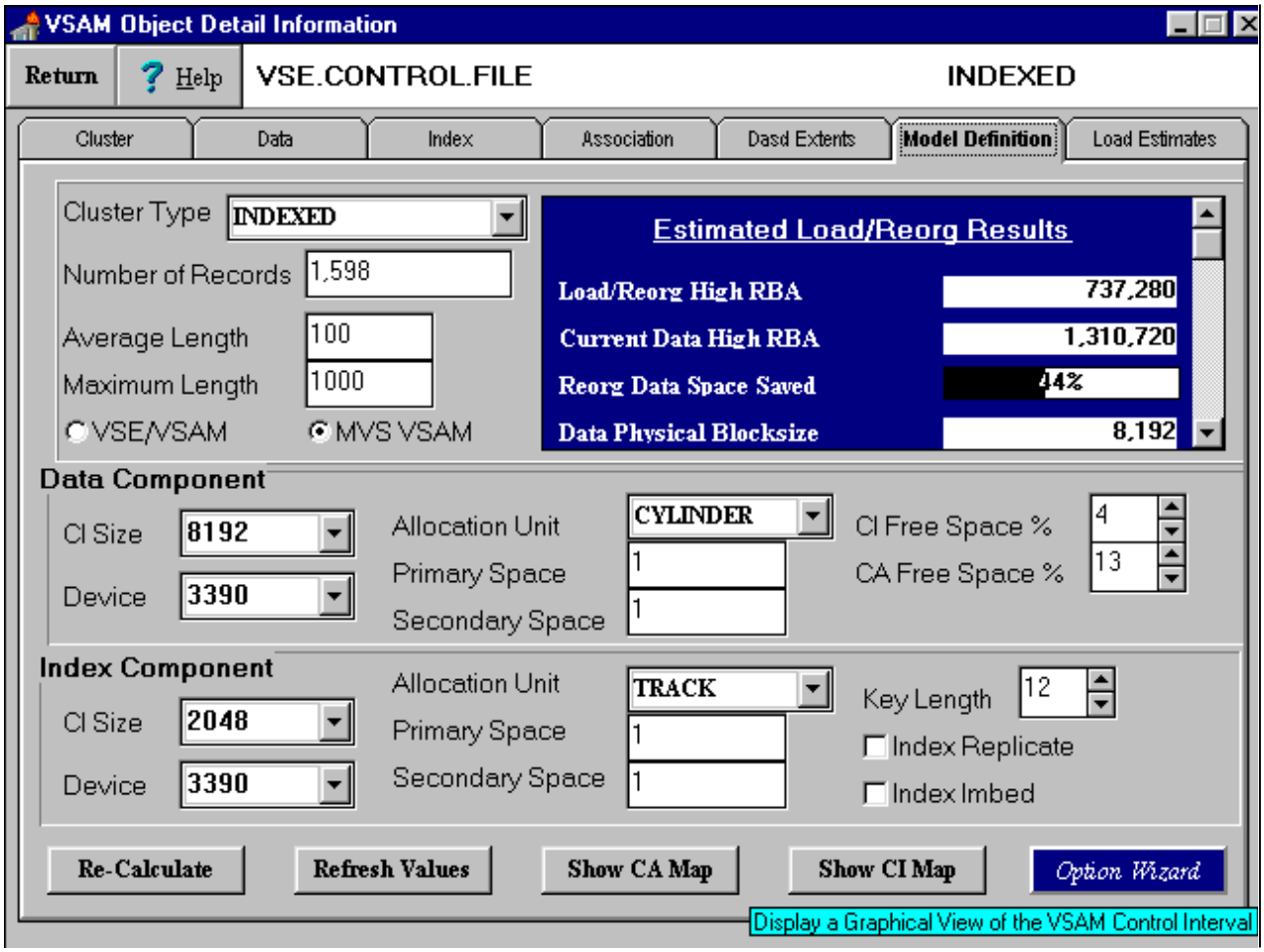
Here you select the primary objective, Read performance Vs. Dasd Space Vs. Insert efficiency.
You may also select other VSAM options, like limiting CI sizes to match LSR Pool buffer sizes.
Click on the **Next** button to proceed.



You can adjust the range, minimum and maximum Control Interval sizes to be considered.
Click on the **Next** button to proceed.



The VSAM options are selected based on the previous answers. You may scroll back to change your answers.
Click on the **Accept** button to return to the Model Definition and recalculate using the Wizard's VSAM options.
The Cancel button will return with the original options unchanged.



This is the result after recalculation with the VSAM Option Wizard selected values.

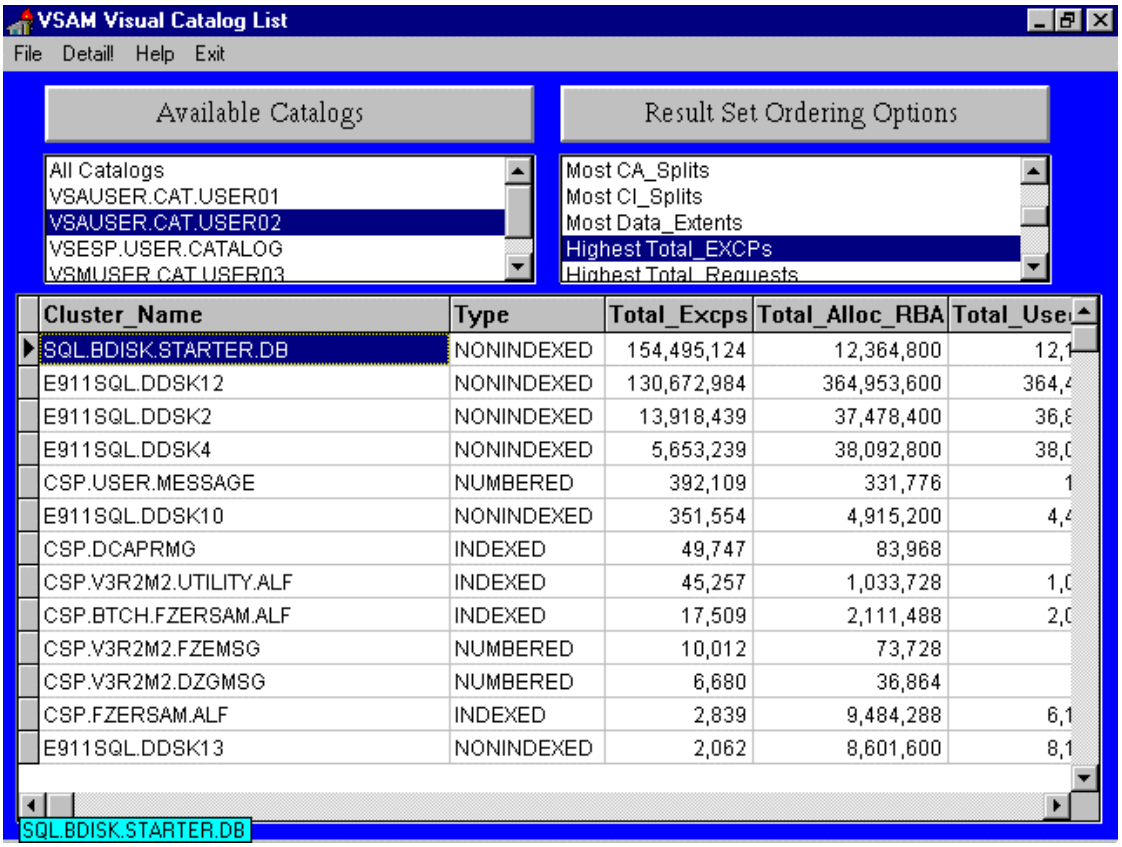
Data CI Size: 8,192
Index CI Size: 2,048
4 Percent CI Free Space
13 Percent CA Free Space

Click on **Return** to return to the file list.

14. Limiting the search to a single VSAM Catalog

Click on the Catalog **VSAUSER.CAT.USER02** under Available Catalogs.
Now only files in the selected Catalog will be displayed.
Scroll down the Result Set Ordering Options and Click on **Highest Total EXCPs** to display the files with the highest I/O activity first.

The following result should be displayed:



15. **To exit the program**:

    Click the **Exit** Menu option.

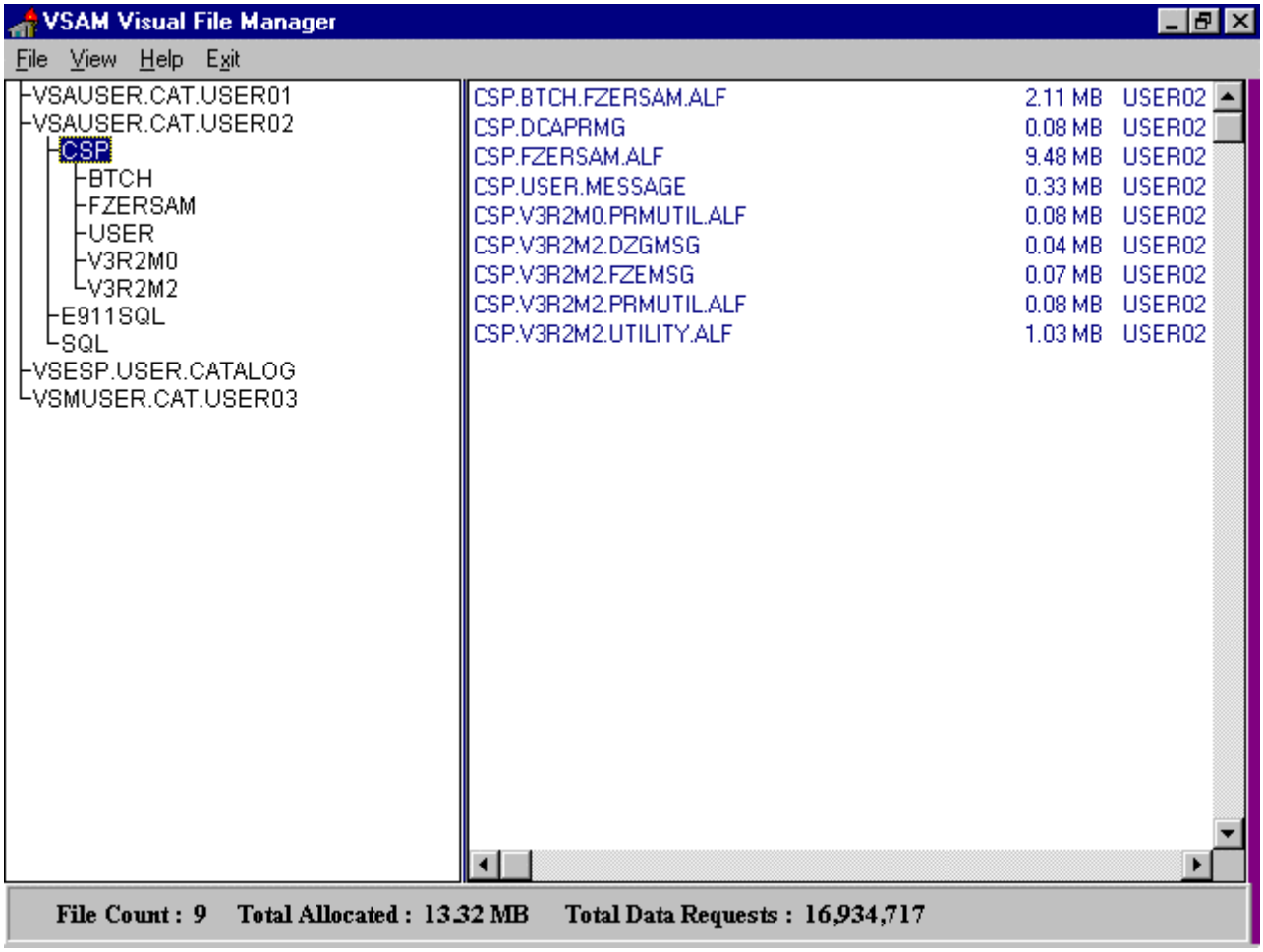
VSAM File Manager Tutorial

1. Select the **VSAM File Manager** application.

2. **Selecting the input database** :
   Select the VSAM Object Database **VSOBJTUT.DB**
   Click on **OK** to begin processing.

3. **Expand the content of a single VSAM Catalog from the list**.
   Double click on one catalog VSAUSER.CAT.USER02 to show the first level qualifiers for dataset names contained in that catalog.

4. **Expand one first level qualifier to display the VSAM files list**.
   Double click on the qualifier CSP to show all the files in the selected Catalog that have the first level qualifier of 'CSP'.



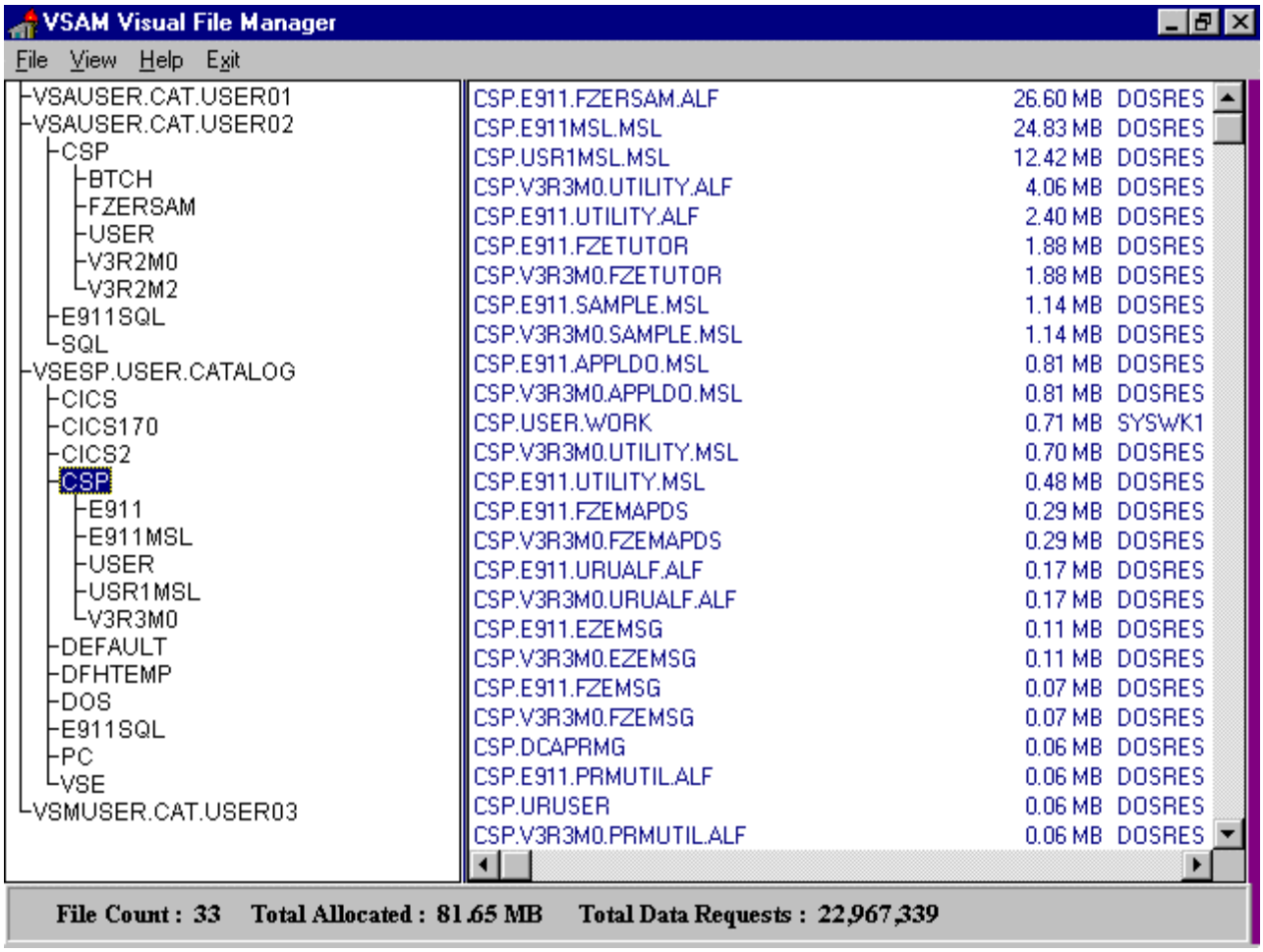
Note the status area at the bottom shows:

9 files with a total size of 13.32 Megabytes and over 16 million VSAM access operations.

5. **Change the order of the VSAM file names**
   Click on the **View** menu option
   Click on the **Sort by Size** suboption to reorder the list by dataset size.

6. **Expand a second VSAM Catalog's contents**.
   Double click on the catalog **VSESP.USER.CATALOG** to show the first level on dataset names contained in that catalog.

7. Expand the same first level qualifier in the VSESP.USER.CATALOG to display the VSAM files.
   Double click on the qualifier **CSP** to show all the files in the selected Catalog that have the first level qualifier of 'CSP'.



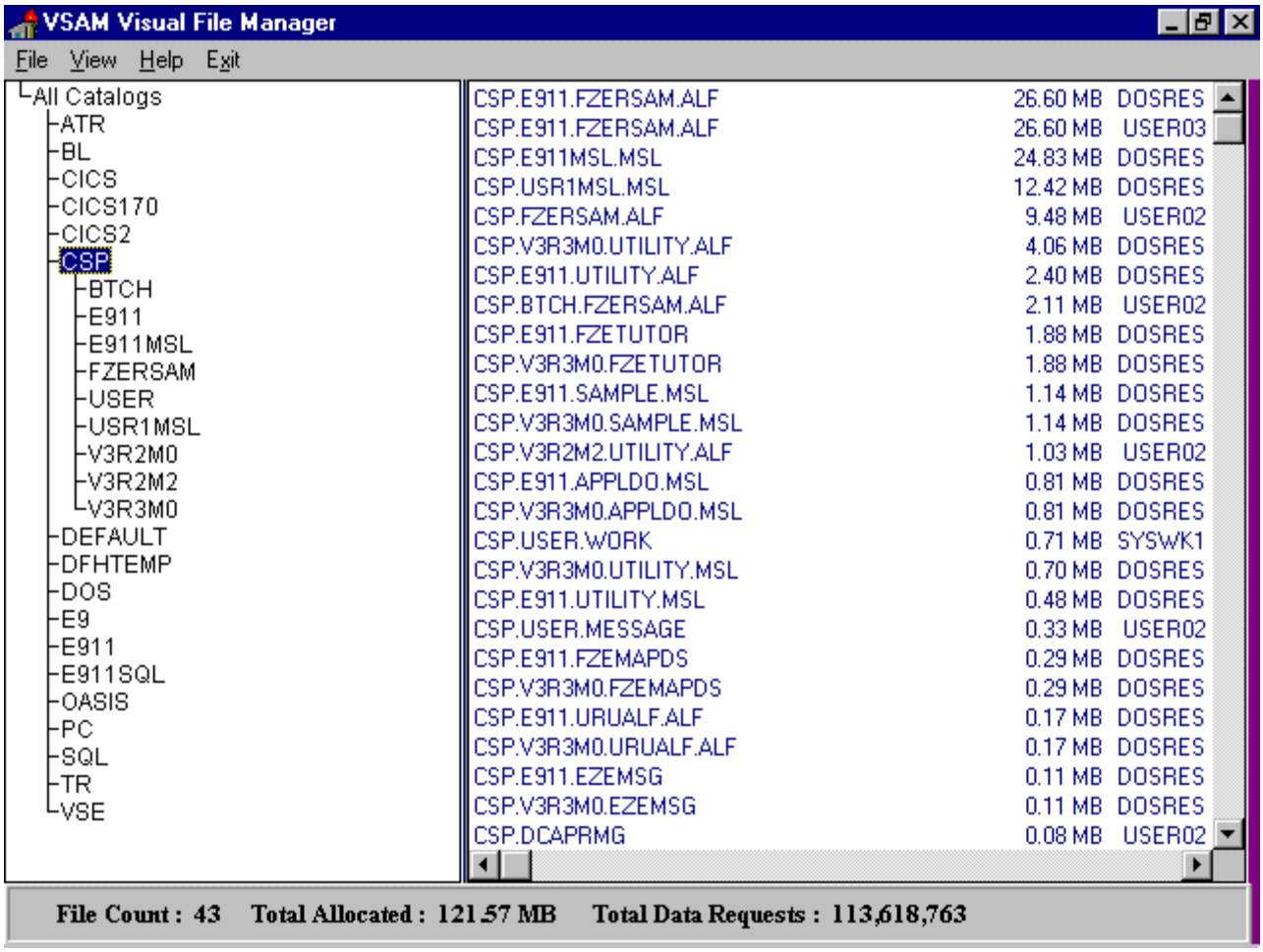
Note the status area at the bottom shows 33 files with a total size of 81.65 Megabytes and over 22 million VSAM access operations.

8. **Scroll the list of VSAM file names** using the scroll bar on the right.

9. **Switch to viewing all the VSAM files, regardless of Catalog**, as a single list.
   Click on the **View** menu option
   Click on the **File Name** sub-option, on the left, to reorder the list to include all files regardless of the VSAM Catalogs.

   Now the list on the left contains all first level qualifiers from all the VSAM Catalogs contained in the VSAM Object database **.**

10. Expand the same first level qualifier in the to display the all the VSAM files.
    Double click on the qualifier **CSP** to show all the files in the selected Catalog that have the first level qualifier of 'CSP'.

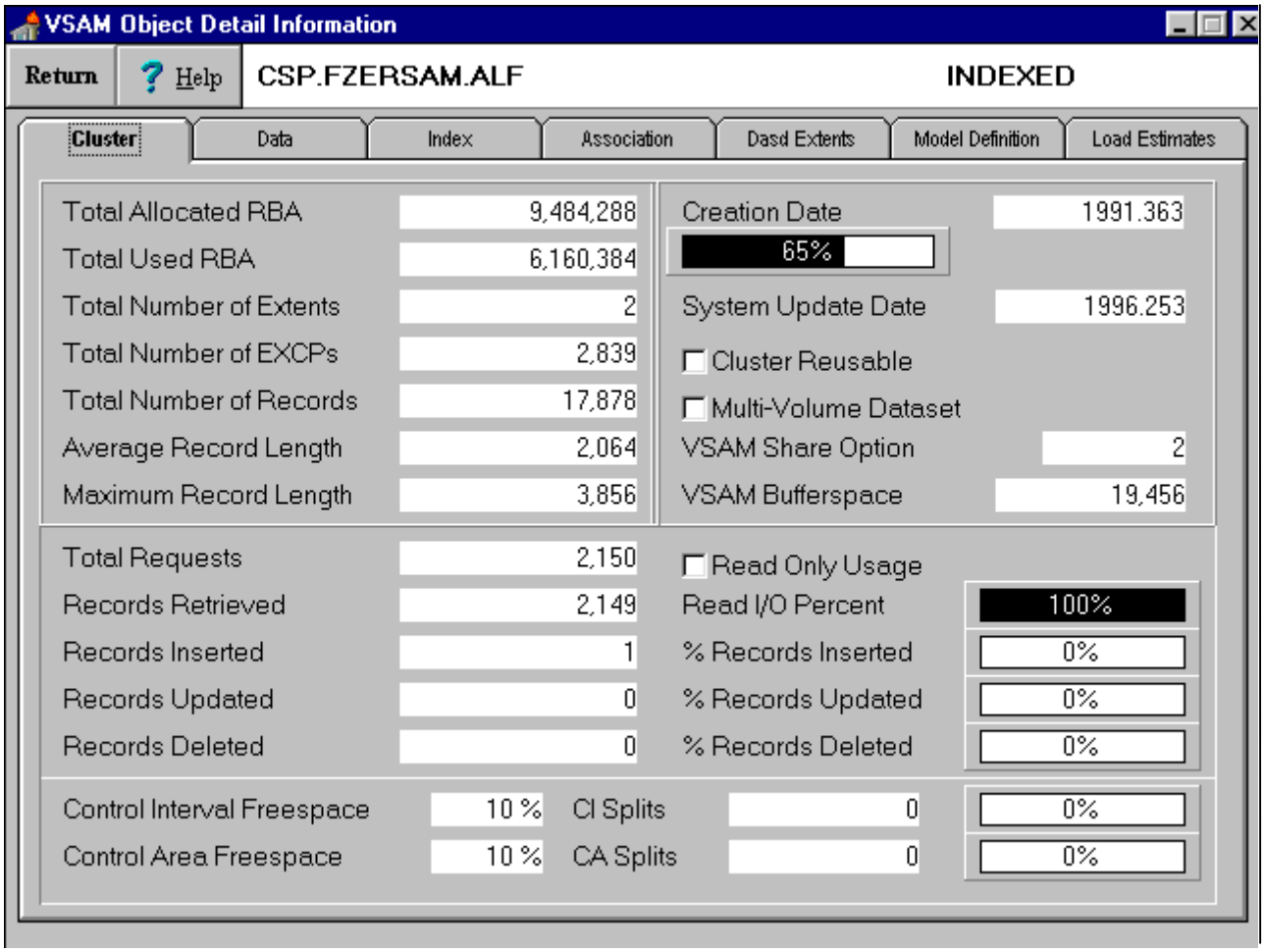


   Note the status area at the bottom shows 43 files with a total size of 121.57 Megabytes and over 113 million VSAM access operations.

11. Scroll the list of VSAM file names using the scroll bar on the right.
    Scroll the list of VSAM files to the right using the scroll bar at the bottom to show additional information about each file, including the primary data volume, the date of creation and the VSAM catalog that contains the file.

12. Display the detail information from one file

Double click on the file **CSP.FZERSAM.ALF** to begin viewing the file details.



13. View additional VSAM Detail or model changes to VSAM Options:

Click on the **Data** tab to view Data component information.

Click on the **Index** tab to view Index component details.

Click on the **Model Information** tab to begin modeling possible VSAM option modifications.

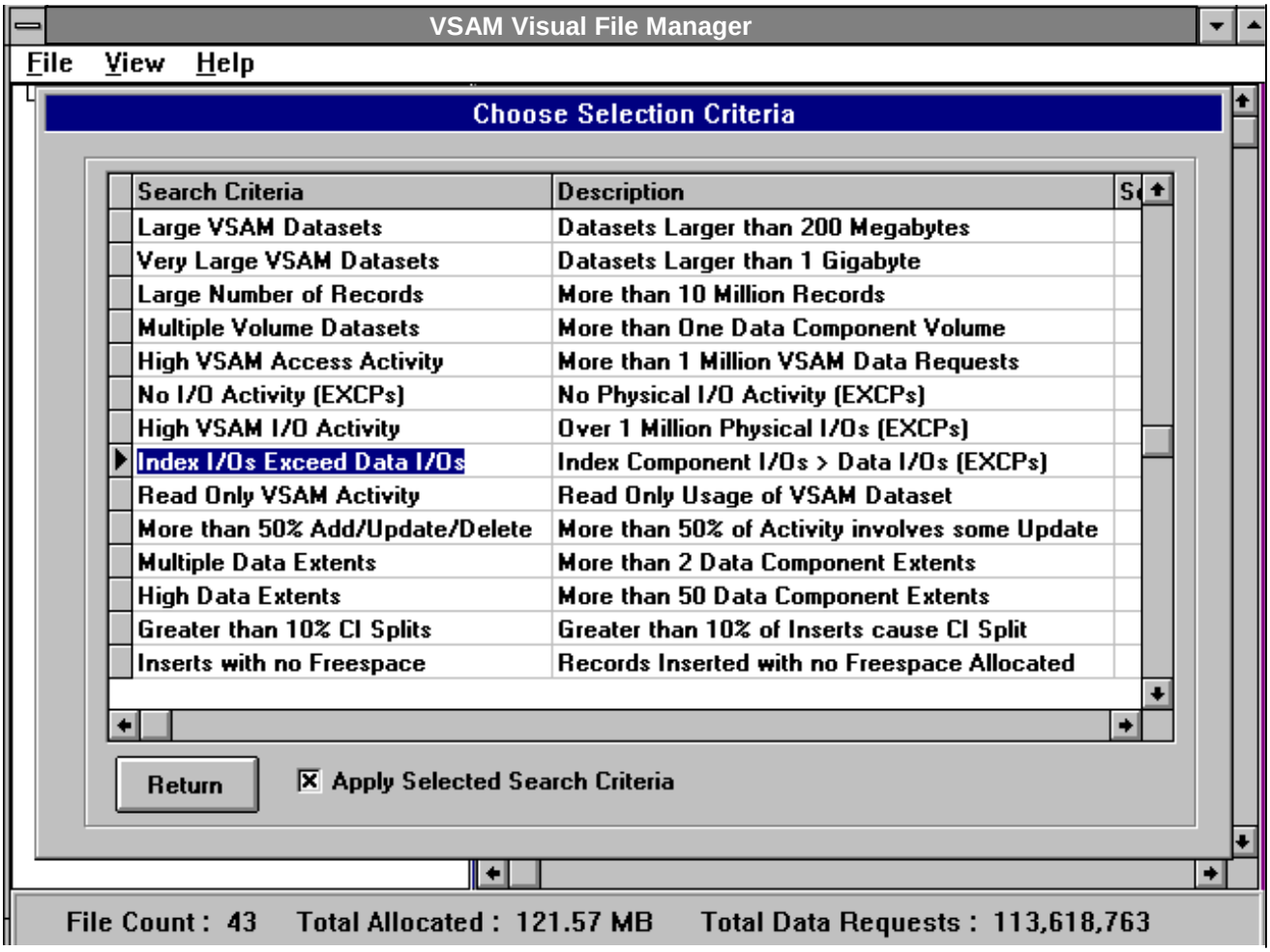
Click on the **Show CA Map** button to display a Control Area view.
Click on the **Return** button.

Click on the **Show CI Map** button to display a Control Interval graphic representation.
Click on the **Return** button.

Click on the **Return button** to exit the detail display.

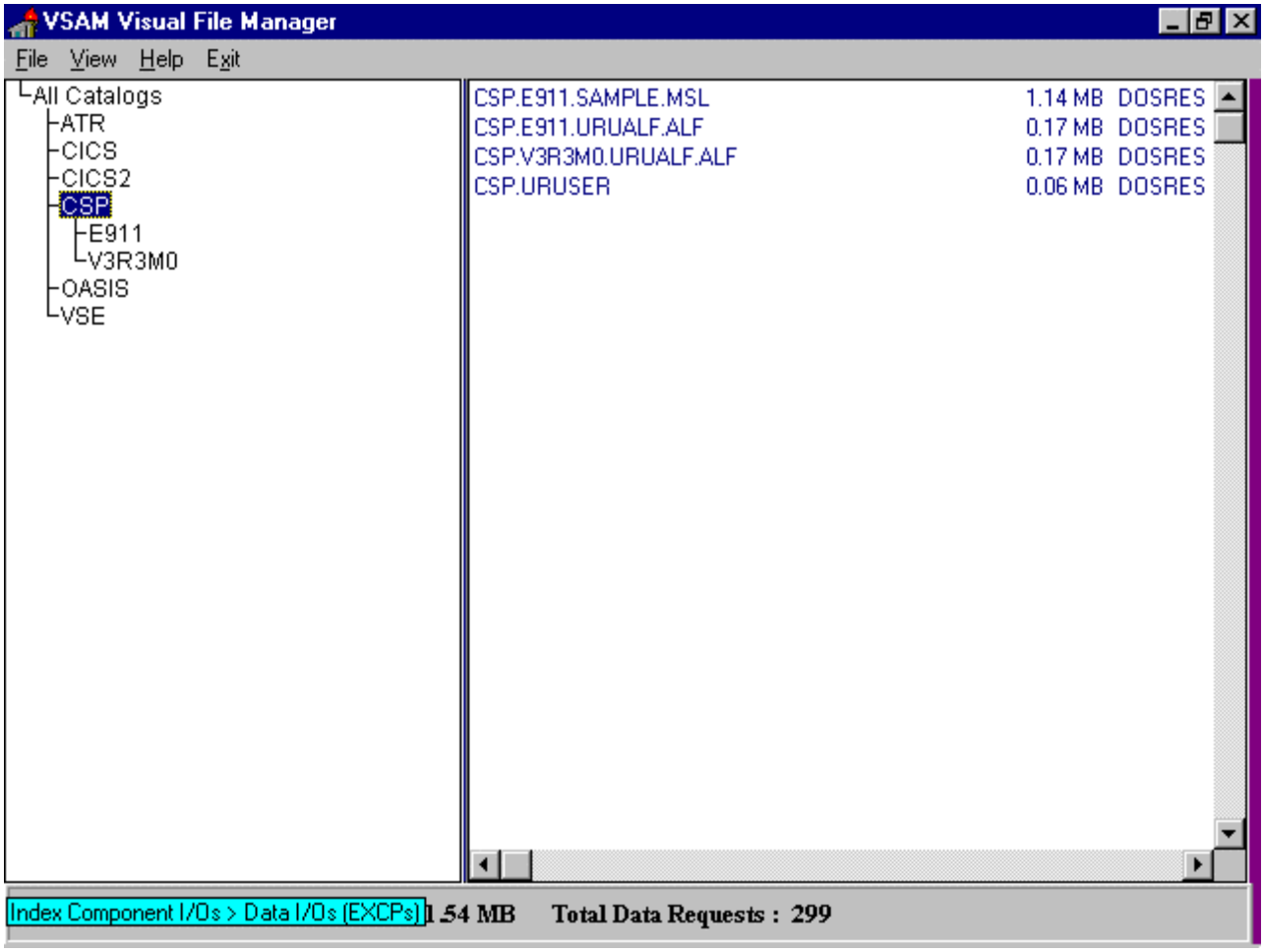
14. Select a search criteria to limit the number of VSAM files displayed

Click on the **File** menu option
Click on the **Set Search Criteria** sub-option.
Locate the text **Index I/Os Exceed Data I/Os** under Search Criteria and click on the text. This will limit the list of VSAM files to contain only files with more I/Os for Index Component records than Data Component CIs.
Click on the **Return** button to return and begin the file search.



Note: this list contains a number of useful search options that can be used to locate VSAM files with options or statistics that might indicate that the VSAM options should be reviewed.

15. Double click on the qualifier **CSP** to show the files that met the search criteria



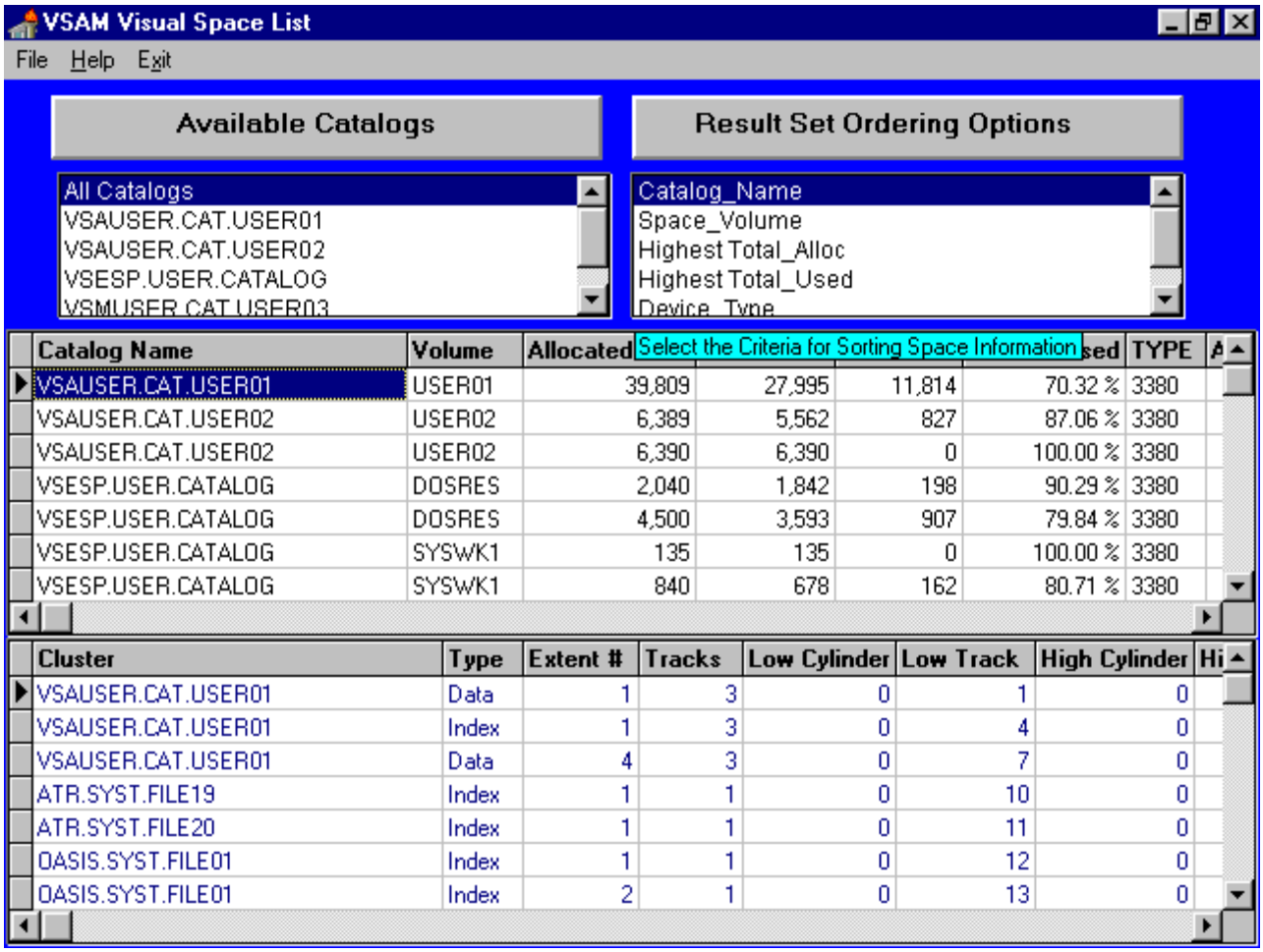
Note the status area at the bottom shows 4 files with a total size of 1.54 Megabytes and 299 VSAM access operations. When the mouse pointer is over the left window, the current search criteria will be displayed in the status area.

16. **To exit the application Click** on the **Exit** menu option.

VSAM Space List Tutorial

1. Select the **VSAM Space List** application.

2. **Selecting the input database** :
   Select the VSAM Space Database **VSSPCTUT.DB**.
   Click on **OK** to begin processing.



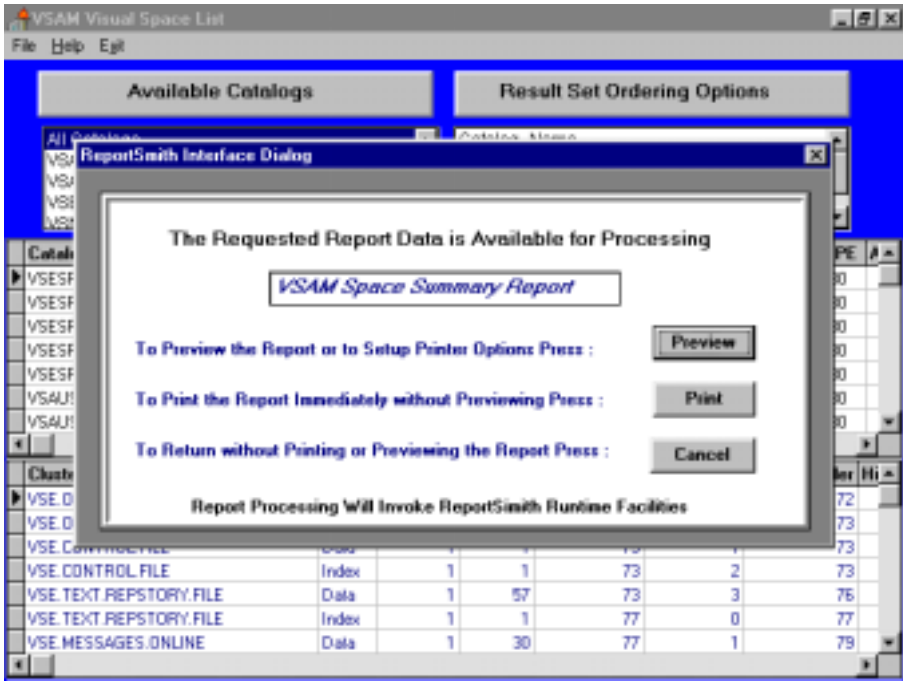
3. **Scrolling the database grid**.
   Try scrolling to the right using the arrow keys or the Tab key.
   The Home and End keys may be used to jump to the first or last data column.

   As you scroll the top window up and down to select a different Space Extent, the bottom window will automatically show the VSAM files that are contained in currently selected VSAM Space.

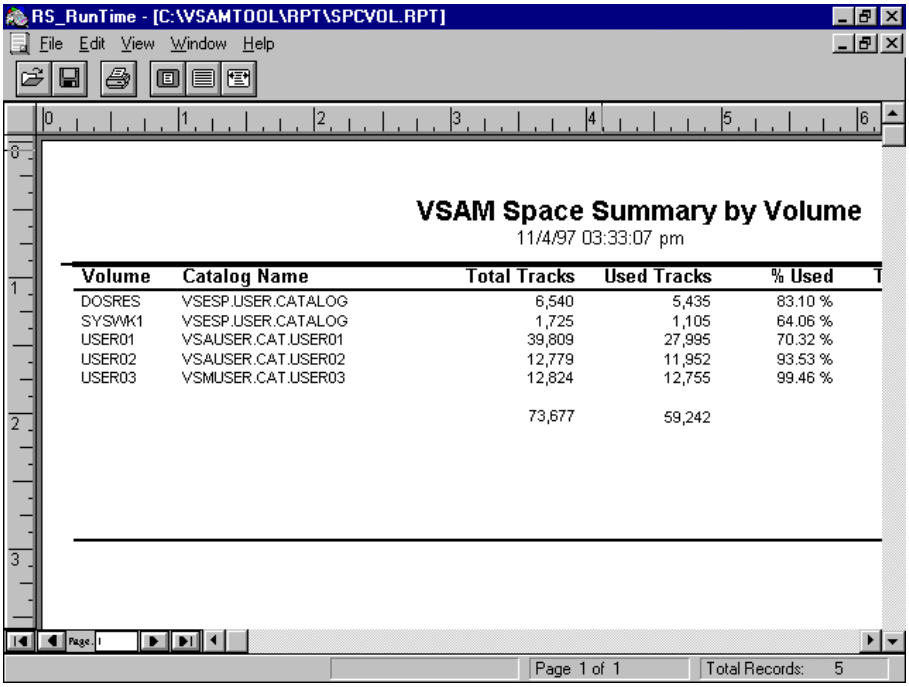
4. **Sorting the VSAM Space Extents**, to find the largest VSAM Disk extents.
   Click on **Highest Total_Alloc** under Result Set Ordering Options.

5. **Sorting by another criteria**, ordering by Volume labels.
   Click on **Space_Volume** under Result Set Ordering Options.

6. **Request a Printed summary report**.
   Click on the **File** menu option
   Click on the **Print/View Reports** menu sub-option.
   Click on the **By Volume** menu sub-option to get a summary of each DASD Volume.

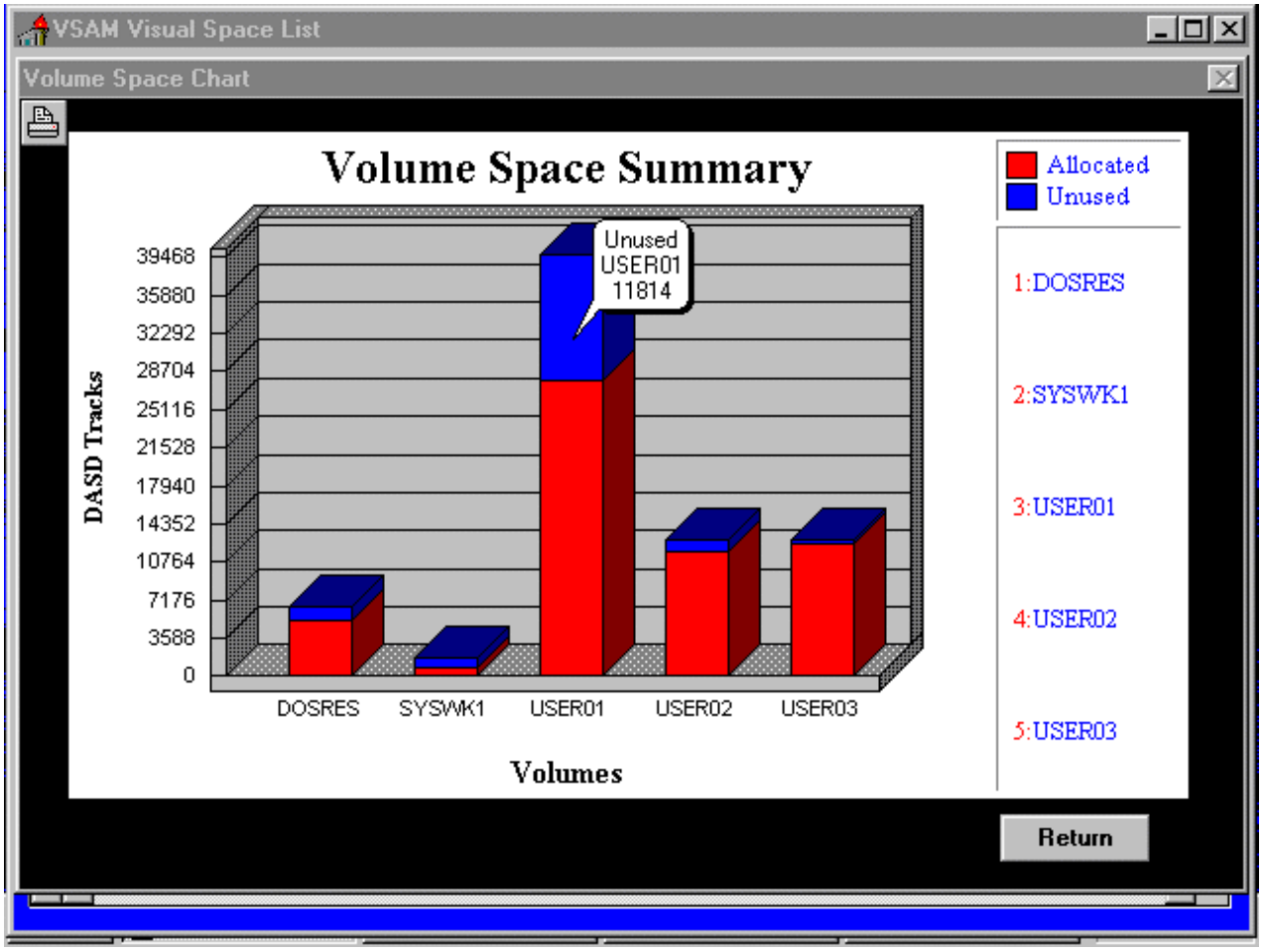


Click on **the Preview** button to preview the report before printing.



Click on the **File** menu option
Click on **Exit** to return to the VSAM Space grid display.

7. **Display a summary Chart**.
   Click on the **File** menu option
   Click on the **Chart Volumes** menu sub-option.
   Click on the **DASD Tracks** menu sub-option.
   Double-click on the 'unused' (Blue) section of volume USER01 to show the number of unused tracks.



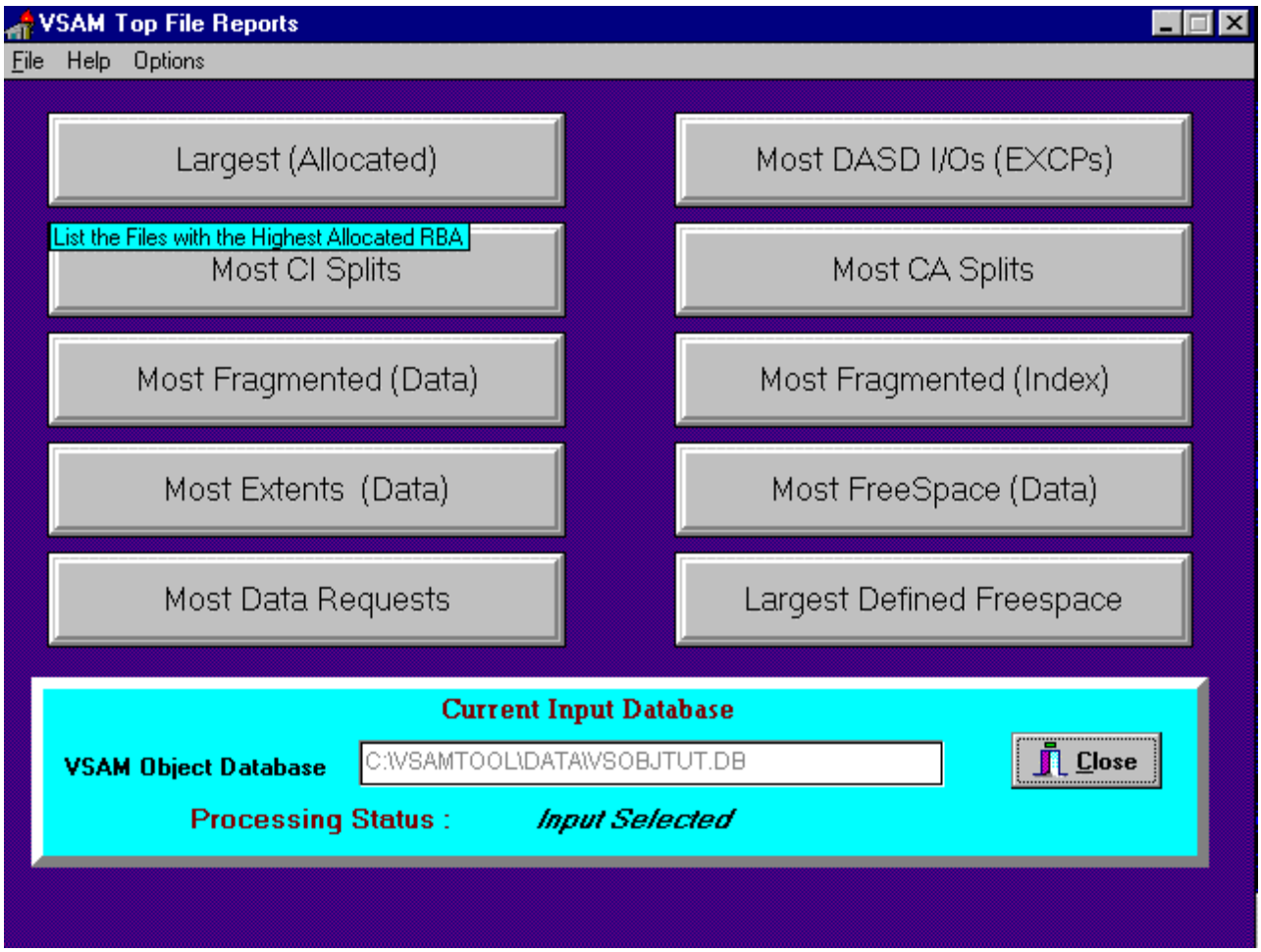
Click on the **Return** button to return to the main application view.

8. **Exit the application**. Click on the **Exit** menu option

VSAM Top File Reports Tutorial

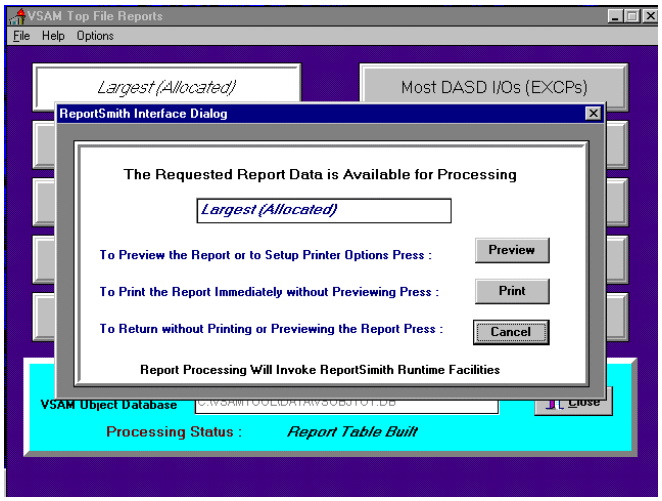
1. Select the **VSAM Top File Reports** application.

2. **Selecting the input database** :
   Select the **File** Menu option.
   Select the **Define Input** menu sub-option.
   Locate and select the VSAM Object Database **VSOBJTUT.DB** as the input for the reports.

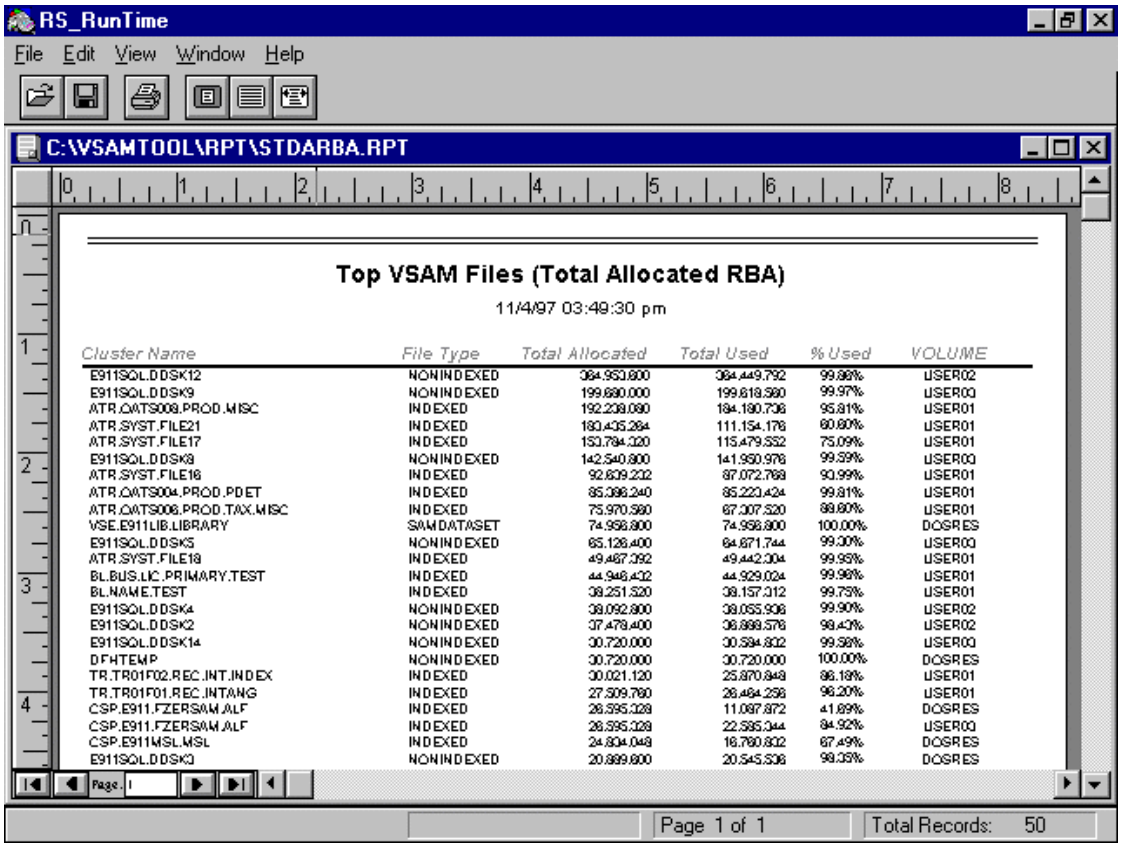


3. **Select the first report**.
   Click on the panel labeled **Largest(Allocated)** to request a report
   Each Panel on this screen represents a different VSAM file report. The input Catalog database will be searched for the VSAM files that match the particular criteria of the selected report. In this case it will be the VSAM files with the largest High Allocated Relative Byte Address (RBA).

Click on the **Preview** button to browse the report prior to printing.



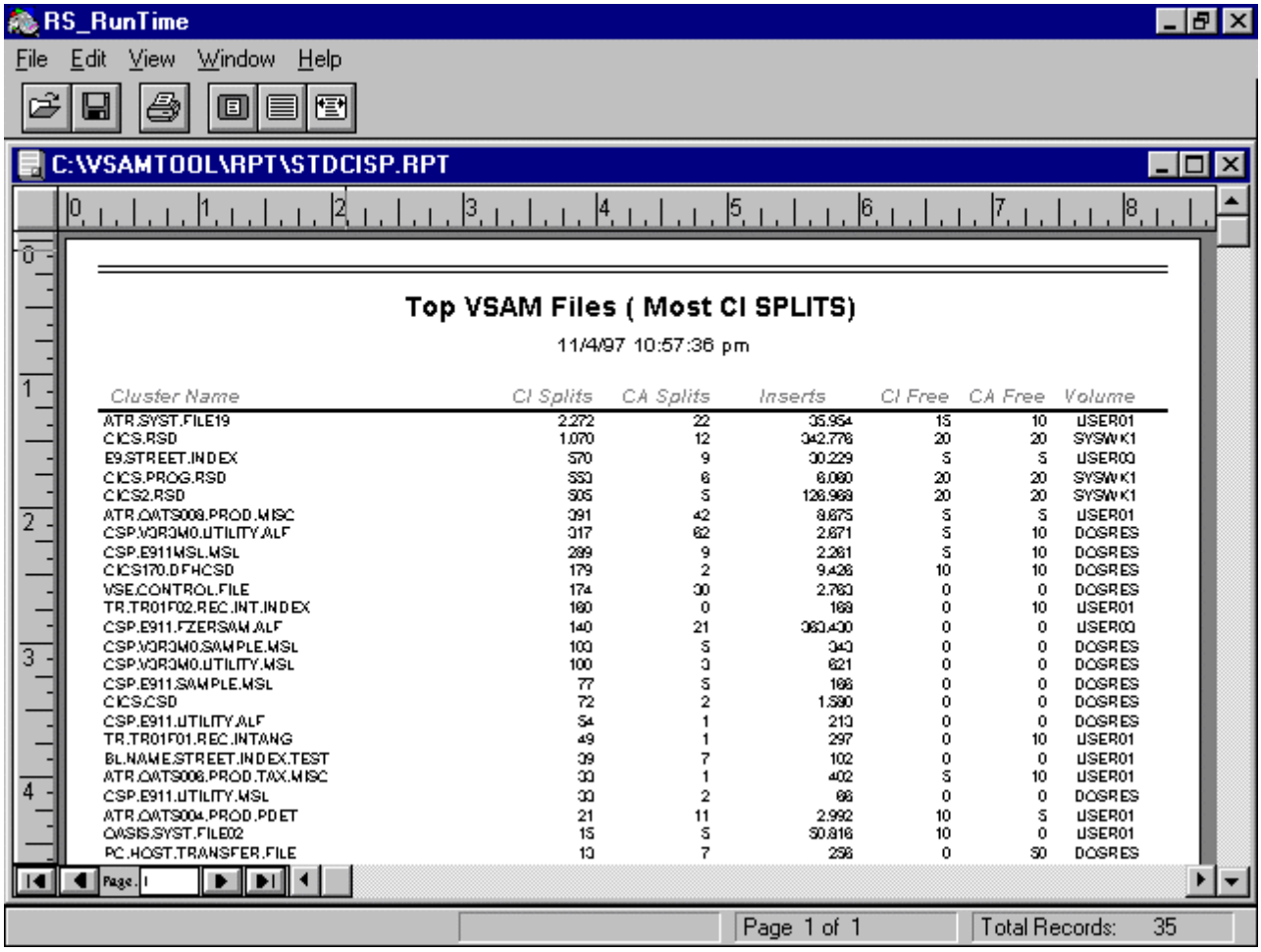
Note the Borland Reportsmith software is used to support printing.



The report can be scrolled using the scroll bars.
See the help information for additional functions within Reportsmith.

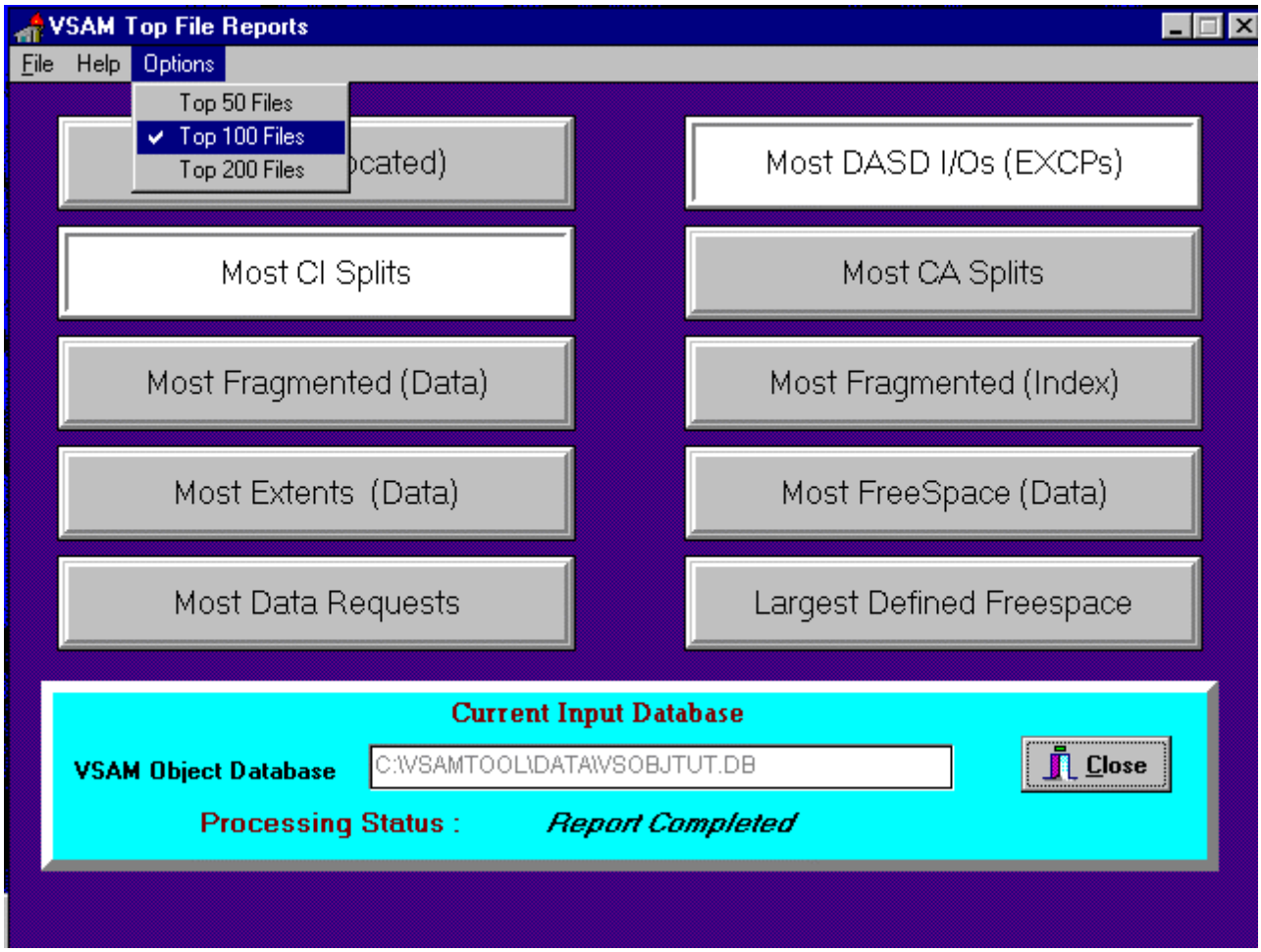
Use the **File / Print Setup** option to make sure the proper printer is selected.
Use the **File Print** option or the Printer Icon to Print the Report.
Use the **File / Exit** option to return to report selection.

4. **Select the next report**.
Click on the panel labeled **Most CI Splits** to request a report of the VSAM file with the largest number of Control Interval Splits.
Click on the **Preview** button to browse the report prior to printing.



Click on the **File** menu option.
Click on the **Save As** sub-option to display the dialog used for saving the current report data in other formats. This may be used to move the selected report information into a spreadsheet for custom analysis.
Click on **Cancel**.
Use the **File / Print** option or the Printer Icon to Print the Report.
Use the **File / Exit** option to return to report selection.

5. **Select a larger size for the next report**. The default report size is 50 files.
   Select the **Options** from the menu.
   Select **Top 100 files** from the list of report sizes.



6. Select the last report.
   Click on the panel labeled **Most Dasd I/Os (Excps)** to request a report of the VSAM file with the most physical I/Os recorded in the Catalog statistics.

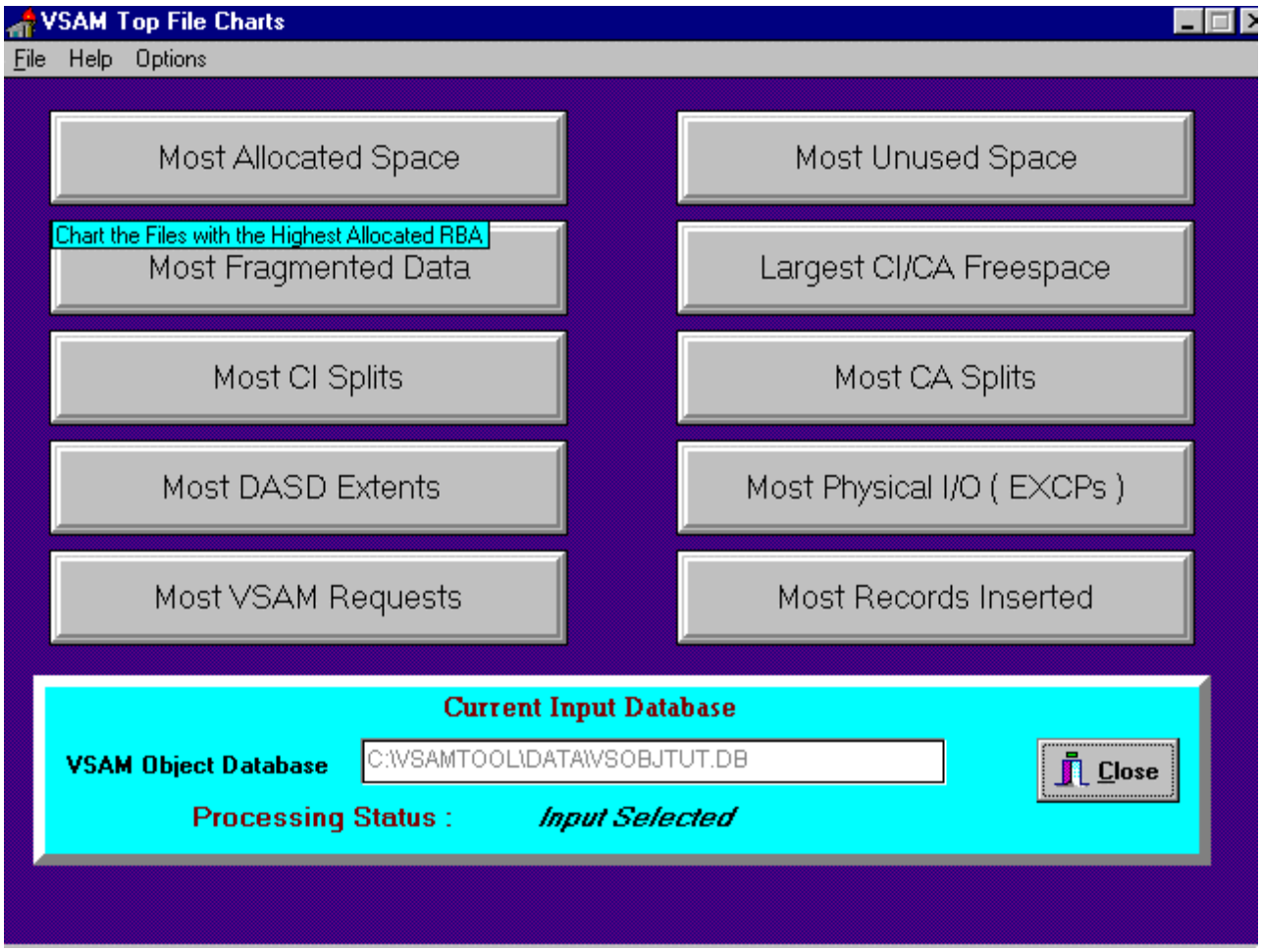
7. **Print a report without previewing**.
   Click on the **Print** button to print the report without previewing the report.

8. **Exit the application**.
   Click on the **File** menu option.
   Click on the **Exit** menu sub-option **.**

VSAM Top File Charts Tutorial

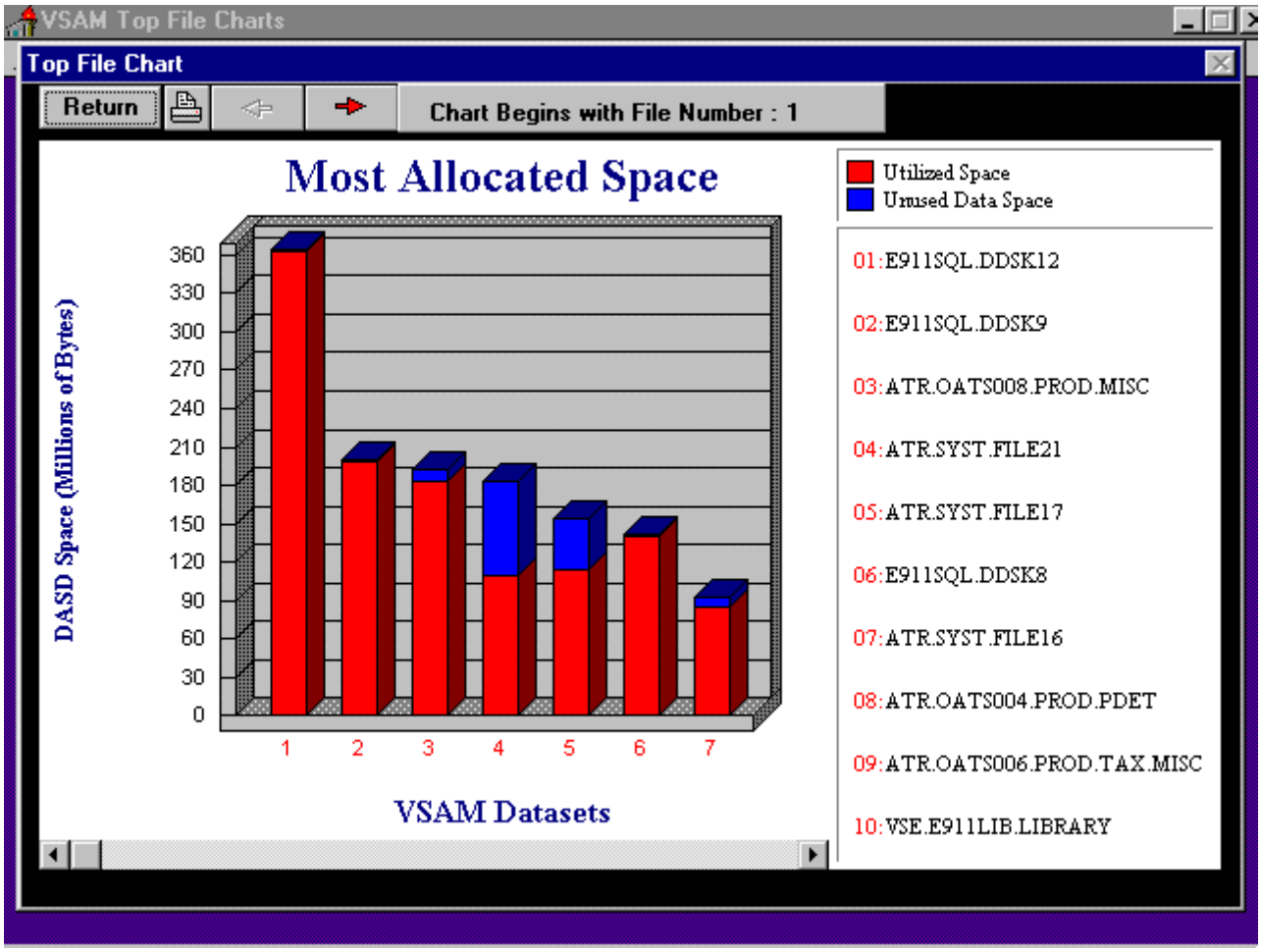
1. Select the **VSAM Top File Charts** application.

2. **Selecting the input database** :
   Select the **File** Menu option.
   Select the **Define Input** menu sub-option.
   Locate and select the VSAM Object Database **VSOBJTUT.DB** as the input for the charting.



3. **Select the first Chart for viewing**.
   Click on the panel labeled **Most Allocated Space** to request a chart of the VSAM files with the largest High Allocated Relative Byte Address (RBA).

   By default the top ten files are displayed in the chart.
   The VSAM file names are listed in the legend to the right to the chart, with a number that matches the numbers below the charted data bars.



Each Chart shows two statistics from the VSAM Catalog. In this Chart, the Utilized Space (Red) can be compared to the Unused Space (Blue), to help visually note which files may contain large amounts of unused space.

Note: in this chart, file number 4, ATR.SYST.FILE21 has the most unused space.

Click on the **Return** button to return to chart selection.

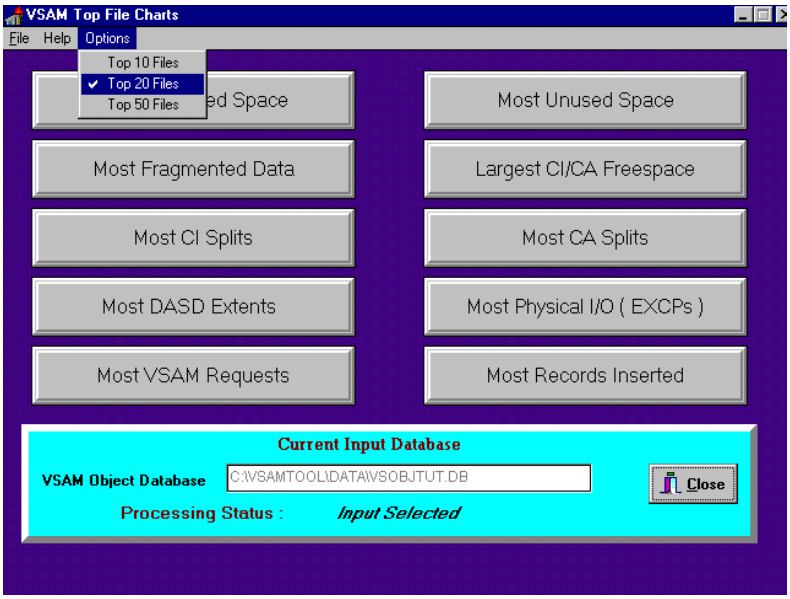
4. **Select the next Chart**.

Click on the panel labeled **Most Dasd Extents** to request a chart of the VSAM files with the largest number of Disk extents.

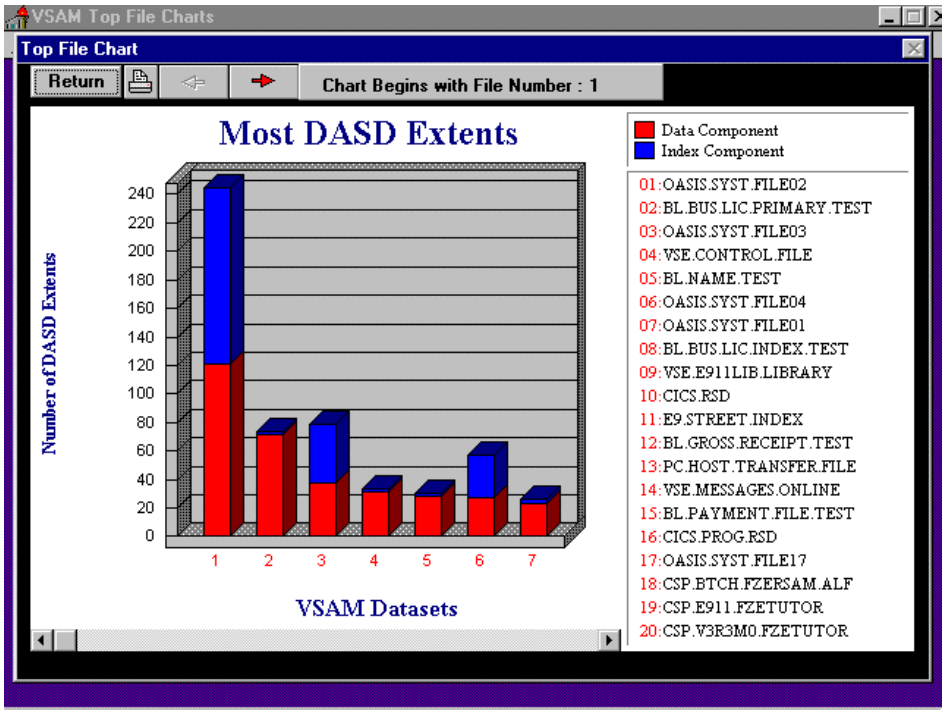
This Chart shows the Data Component extents in Red and the Index Component Extents in blue.

Click on the **Return** button to return to chart selection.

5. **Select a larger list of files for the next chart**. Note the default report size is 10 files.
   Select the **Options** from the menu.
   Select **Top 20 files** from the list of chart options.

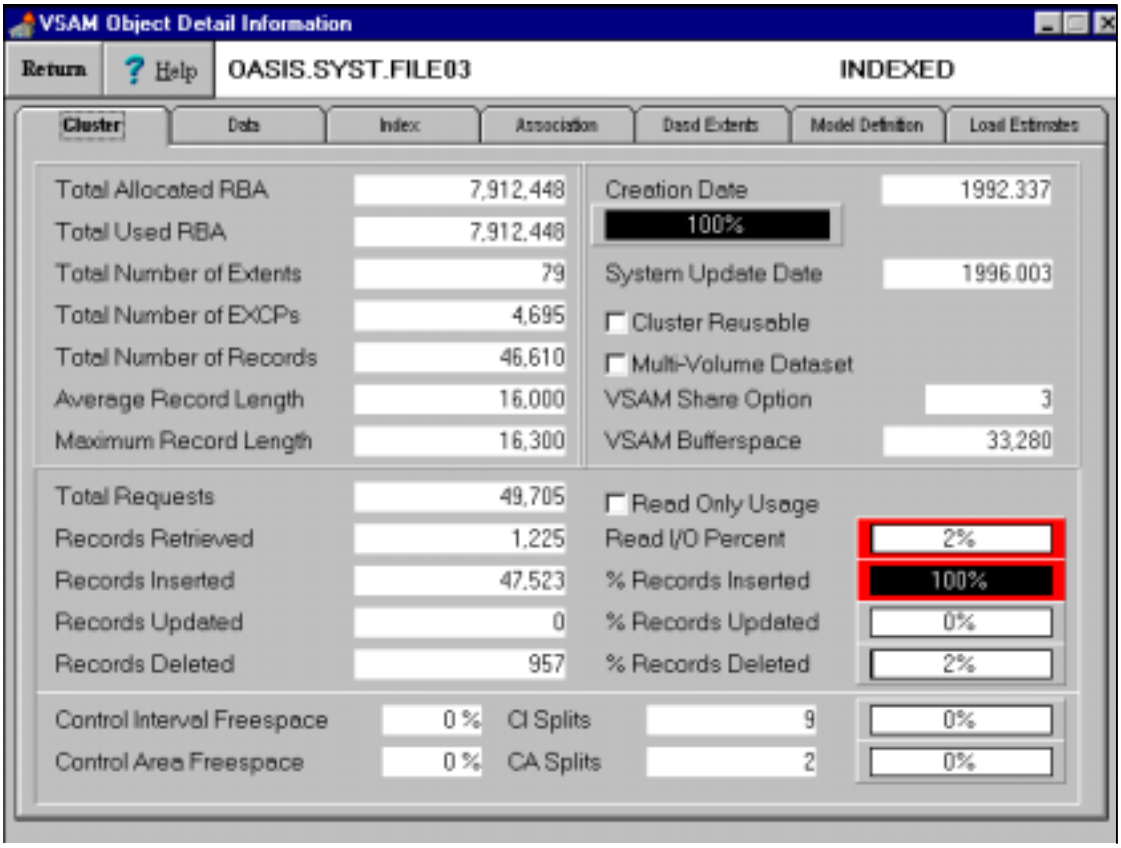


Click on the panel labeled **Most Dasd Extents** to request the same type of chart with more files displayed.



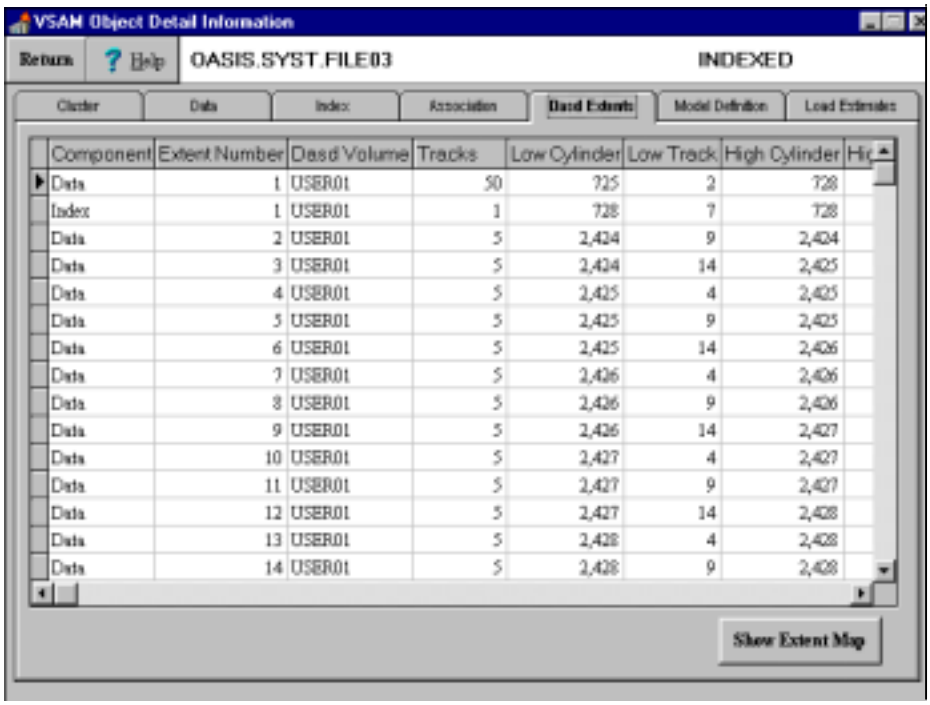
6. **Display the Detail of a specific file**.

Right click on the **blue or red bar** of the third file in the chart named "OASIS.SYST.FILE03" with the **right** mouse button. This will create a tabbed notebook display of the file's detailed information.



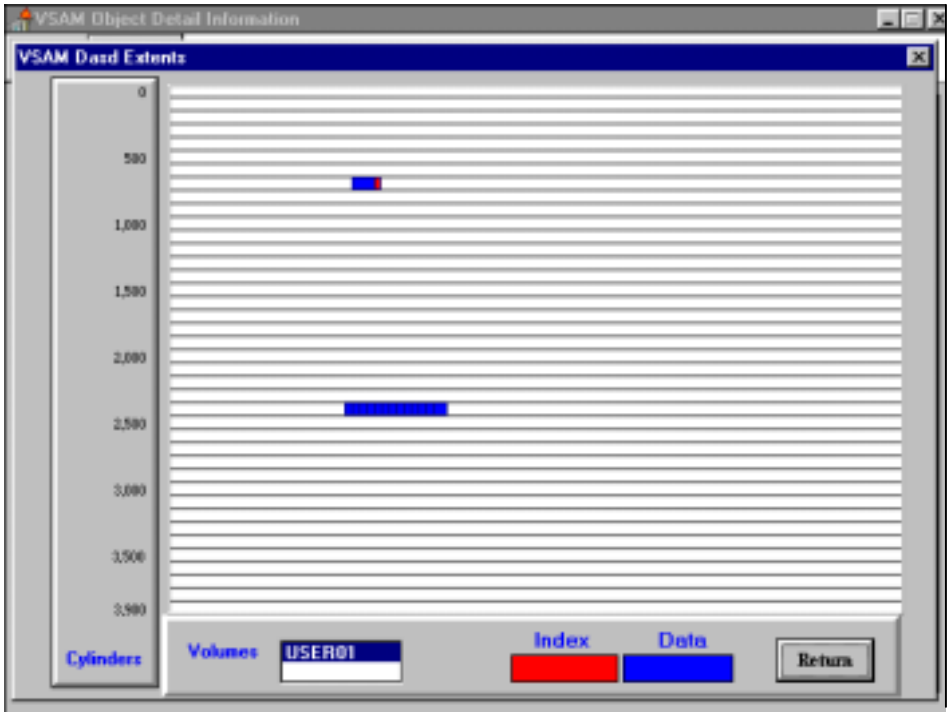
Try clicking on the various pages of information, Data Component, Index Component or Load Estimates.

7. Click on the **Dasd Extents** Tab to display the list of extents.



This displays the detailed Index and Data component extent information for this VSAM file, by Volume in physical sequence.

Click on the **Show Extent Map** button to display a visual map of the extents.

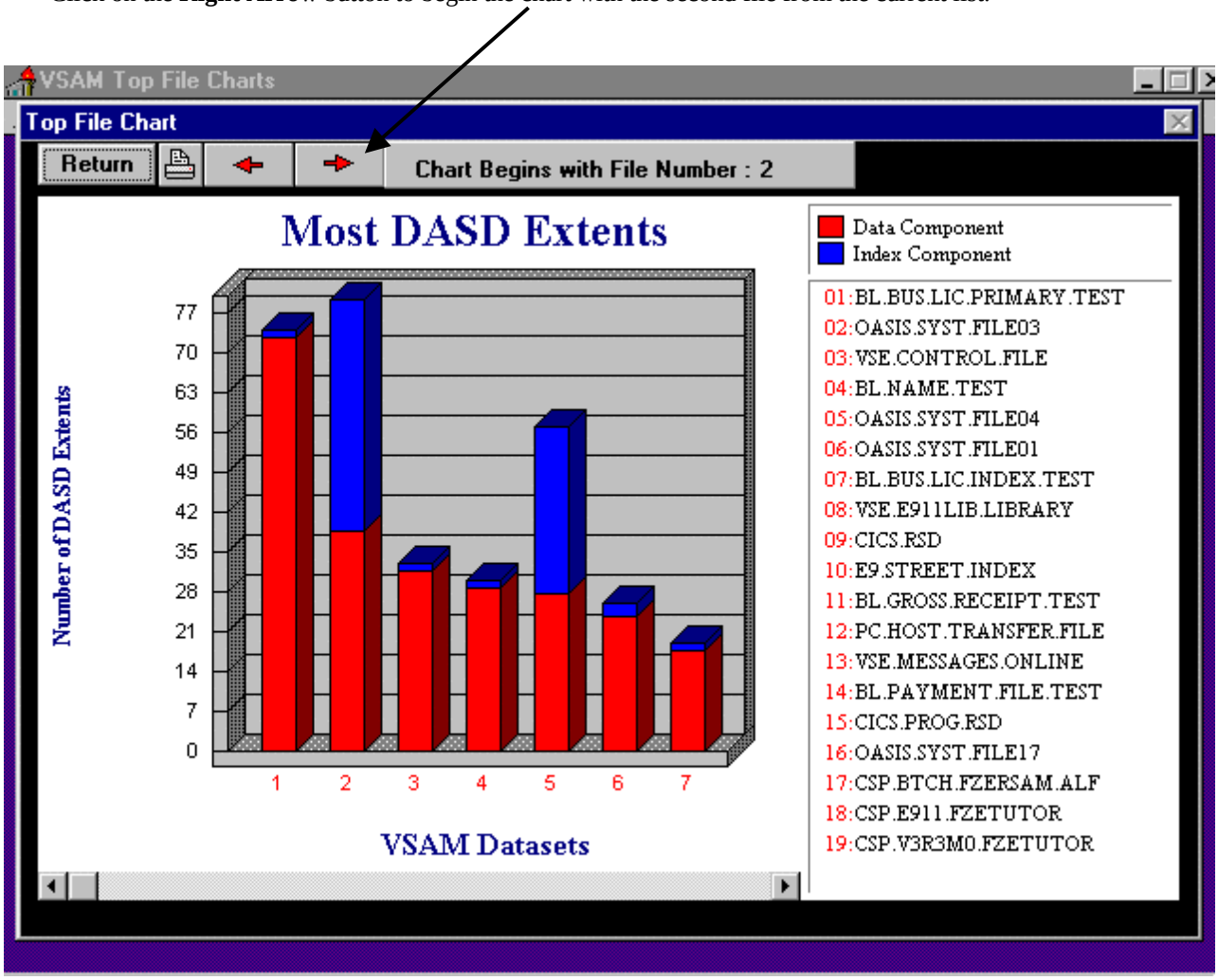


Click on the **Return** button to return to the Extent List.

Click on the **Return** button to return to the chart after viewing any desired detail information.

8. **Skip over one or more exceptional files** for the next chart.
   Charts are often made more useful by skipping over one or more few exceptionally large entries.

   Click on the **Right Arrow** button to begin the chart with the second file from the current list.



   The message area shows that the chart now begins with file 2.
   Use the right and left arrow buttons to scroll the file list while adjusting the chart scale. You may also use the scroll bar at the bottom of the chart to view the rest of the files.

   Click on the **Return** button to return to chart selection.

9. **Exit the application**.
   Click on the **Exit** menu option.

BIM-VSUM/PC

VSAM Database Contents

VSAM Object Database Contents

The following data items are contained in the VSAM Object Databases created and used by the BIM-VSUM/PC Tools. Each row in the database contains the information from one VSAM cluster, including both the Data Component and Index Component, if one exists.

CATALOG_NAME - The name of the VSAM Catalog that contains the Cluster.

CLUSTER_NAME - The name of the VSAM Cluster.

CLUSTER_TYPE - The type of VSAM Cluster, for example a VSAM Key Sequence Dataset or KSDS will be 'INDEXED', a ESDS will be 'NONINDEXED'.

DATA_RECORDS - The count of data records from the Catalog statistics. This count may not be accurate and can be shown as zero depending on the type of usage.

TOTAL_ALLOC_RBA - The total allocated DASD space for this file, it is the sum of the Data and Index components.

TOTAL_USED_RBA -The total DASD space currently in use for this file, it is the sum of the Data and Index components.

DEFINED_FREESPACE- The is the estimated amount of data space reserved for adding new records after initial file creation based on the current CI Freespace and CA Freespace percentages. This only applies to VSAM Keyed files.

TOTAL_EXTENTS - The total number of DASD extents, it is the sum of the Data and Index components.

TOTAL_EXCPS - The total number of physical I/Os or EXCPs for this file, it is the sum of the Data and Index components.

DATA_ALLOC_RBA - The DASD space allocated to the Data Component of this file.

DATA_USED_RBA - The DASD space currently in use by the Data Component of this file.

DATA_EXTENTS - The number of DASD extents in the Data Component of this file.

DATA_FREESPACE- The DASD space that is allocated to the Data Component of this file but has not been utilized to store any data.

INDEX_ALLOC_RBA -The DASD space allocated to the Index Component of this file.

INDEX_USED_RBA - The DASD space currently in use by the Index Component of this file.

INDEX_EXTENTS -The number of DASD extents in the Index Component of this file.

INDEX_FREESPACE -The DASD space that is allocated to the Index Component of this file but has not been utilized to store Index records

TOTAL_REQUESTS- The total number of VSAM data accesses, including, records retrieved, updated, added, and deleted from this VSAM file. (Note 1)

DATA_RETRIEVED- The total number of data records retrieved from this VSAM file. (Note 1)

DATA_INSERTS - The total number of data records added to this VSAM file. (Note 1)

DATA_UPDATES -The total number of data records updated in this VSAM file. (Note 1)

DATA_DELETES - The total number of data records deleted from this VSAM file. (Note 1)

DATA_EXCPS - The total number of physical I/Os or EXCPs for the Data component.

INDEX_EXCPS - The total number of physical I/Os or EXCPs for the Index component.

DATA_CISIZE - The size of the Control Intervals in the Data component.

DATA_CASIZE - The number of Control Intervals in each Control Area in the Data component.

INDEX_CISIZE -The size of the Control Intervals in the Index component.

INDEX_CASIZE - The number of Control Intervals in each Control Area in the Index component.

CA_SPLITS - The total number of Control Area Splits in this VSAM file. (Note 1)

CI_SPLITS - The total number of Control Interval Splits in this VSAM file. (Note 1)

CA_FREE - The percentage of each Control Area reserved for inserting records in the Data component of this VSAM file.

CI_FREE -The percentage of each Control Interval reserved for inserting records in the Data component of this VSAM file.

AVG_LRECL - The average record length that was specified when the VSAM file was defined. (Often, this may not reflect the actual average record length.)

MAX_LRECL - The maximum record length allowed in this VSAM file, as defined.

DATA_KEYLENGTH - The fixed length of the key data in each data record.

DATA_KEYPOSITION - The fixed position of the key data in each record, relative to zero.

INDEX_RECORDS - The count of Index records in the Index component of this file.

INDEX_LEVELS - The number of levels in the tree structure of the Index component.

CREATION_DATE - The date when the VSAM dataset was defined in the VSAM Catalog.

SYSTEM_DATE - The date when the VSAM dataset was last updated.

BUFFERSPACE - The minimum amount of VSAM buffer storage for this file, as defined.

SHAREOPTIONS - The VSAM dataset sharing option, as defined.

INDEX_IMBED - The VSAM option to 'imbed' index records in the data component, as defined.

INDEX_REPLICATE - The VSAM option to 'replicate' index records, one record per DASD track, for improved Index access, as defined.

CLUSTER_REUSABLE - The VSAM option to 'reuse' of empty a VSAM file without deleting the dataset, as defined.

MULTI_VOLUME - An indicator that the Data Component resides on more than one DASD volume.

READ_ONLY - An indication that all activity to this dataset recording in the Catalog statistics has been read only, no inserts, updates or deletes have been noted.

DATA_VOLUME - This primary or only DASD volume for the Data component.

DATA_DEVICE - The DASD device type for the Data component.

DATA_SPACE_TYPE - The unit of allocation, TRACKS, CYLINDERS.in the Data Component.

DATA_SPACE_PRI - The amount of DASD space in the first or primary allocation in the Data component for this dataset.

DATA_SPACE_SEC - The amount of DASD space in each additional allocation in the Data component for this dataset, as defined.

DATA_PHYREC_SIZE - The size of each physical DASD record in the Data component.

DATA_PHYREC_TRK - The number of physical DASD records per track in the Data component.

INDEX_VOLUME - This primary or only DASD volume for the Index component.

INDEX_DEVICE -The DASD device type for the Index component.

INDEX_SPACE_TYPE -The unit of allocation, TRACKS, CYLINDERS.. in the Index Component.

INDEX_SPACE_PRI -The amount of DASD space in the first or Primary allocation in the Index component for this dataset.

INDEX_SPACE_SEC -The amount of DASD space in each additional allocation in the Index component for this dataset, as defined.

INDEX_PHYREC_SIZE -The size of each physical DASD record in the Index component.

INDEX_PHYREC_TRK -The number of physical DASD records per track in the Index component.

DATA_LOW_CYL - The lowest DASD cylinder address on the primary DASD volume for Data.

DATA_LOW_TRK - The lowest DASD track address on the primary DASD volume for Data.

DATA_HIGH_CYL -The highest DASD cylinder address on the primary DASD volume for Data.

DATA_HIGH_TRK - The highest DASD track address on the primary DASD volume for Data.

INDEX_LOW_CYL -The lowest DASD cylinder address on the primary DASD volume for Index.

INDEX_LOW_TRK - The lowest DASD track address on the primary DASD volume for Index.

INDEX_HIGH_CYL - The highest DASD cylinder address on the primary DASD volume for Index

INDEX_HIGH_TRK - The highest DASD track address on the primary DASD volume for Index.

DATA_USED_PERCENT - The percentage of the allocated DASD space that is currently in use in the Data component. (Note 1)

READ_PERCENT - The percentage of all recorded accesses to this VSAM file which were read only. (Note 1)

INSERT_PERCENT - The percentage of the current number of records that have been added since the Dataset was defined. (Note 1)

UPDATE_PERCENT - The percentage of the current number of records that have been updated since the Dataset was defined. (Note 1)

DELETE_PERCENT -The percentage of the current number of records that have been deleted since the Dataset was defined. (Note 1)

DATA_FRAGMENT - This is a calulated number of DASD Cylinders. It indicates that the Data component spans a larger portion of the DASD volume than if all the extents were contiguous. This will not be calculated for multivolume files.

INDEX_FRAGMENT -This is a calulated number of DASD Cylinders. It indicates that the Index component is separated from the Data component, which may degrade performance due to added DASD movement. This will not be calculated if the Index and Data are on different DASD volumes.

CI_SPLIT_PERCENT - The percentage of record insertions which caused CI splits. (Note 1).

CA_SPLIT_PERCENT - The percentage of record insertions which caused CA splits. (Note 1).

STATS_DATE - The date taken from the VSAM LISTCAT indicates the date when the VSAM Catalog information was captured.

Note 1 - There are a number of situations that cause the information and statistics in a VSAM Catalog to be missing or inaccurate. These data items may still be useful but must be carefully examined to avoid incorrect analysis. For example some Database products will use a VSAM dataset for storage without recording any records retrieved in the statistics. The information here is taken directly from the VSAM Catalog and is therefore subject to the same limitations.

VSAM Dasd Extent Database Contents

The following data items are contained in the VSAM Dasd Extent Databases created and used by the BIM-VSUM/PC tools. This Database is used to store the detailed extent information displayed in both text and graphical views. This helps the VSAM Administrator see how fragmented the placement of the Index and Data portions are on the Dasd volumes. This Database will use a prefix of **VSEXT**. The suffix will be set to match the VSAM Object Database.

CATALOG_NAME - The name of the VSAM Catalog that contains the VSAM file extent.

CLUSTER_NAME – The VSAM Cluster that occupies the Data or Index extent.

EXTENT_TYPE - This will be either ‘Data’ or ‘Index’ depending on the component.

EXTENT_NUMBER – The relative number of this extent.

EXTENT_VOLUME – The Dasd Volume ID of this extent.

LOW_CYL - The starting Cylinder address for this extent

LOW_TRK - The starting Track address for this extent

HIGH_CYL - The ending Cylinder address for this extent

HIGH_TRK - The ending Track address for this extent

START_TRACK - The relative starting Track address for this extent

TRACKS - The number of Dasd Tracks for this extent

LOW_RBA - The starting VSAM Relative Byte Address for this extent

HIGH_RBA - The ending VSAM Relative Byte Address for this extent

VSAM Association Database Contents

The following data items are contained in the VSAM Association Databases created and used by the BIM-VSUM/PC tools. This Database is used to store the names of the VSAM 'objects' related to a VSAM Cluster. This could be the names of the Index and Data Components, or a VSAM Alternate Index or Path. This helps the VSAM Administrator locate alternate indexes to plan for the effects of a Delete/Define. This Database will use a prefix of **VSASC**. The suffix will be set to match the VSAM Object Database.

CATALOG_NAME - The name of the VSAM Catalog that contains the VSAM objects.

CLUSTER_NAME – The name of the VSAM Cluster or AIX.

ASSOC_NAME - The name of the associated VSAM Object.

ASSOC_TYPE - The type of the associated VSAM Object, which could be : 'Cluster', 'Data', 'Index' , 'AIX', or 'Path'.

VSAM Space Database Contents

The following data items are contained in the VSAM Space Databases created and used by the BIM-VSUM/PC Tools. This Database is used to store the information about VSAM DASD Space owned by VSE/VSAM Catalogs and is used to help analyze this information stored in VSE/VSAM Catalogs. Each row in the database contains the information from one VSAM DASD Extent, resulting from a **DEFINE SPACE** command.

CATALOG_NAME - - The name of the VSAM Catalog that contains the defined DASD space.

SPACE_VOLUME – The disk volume identifier.

START_CYL – The beginning disk cylinder address.

START_TRK – The beginning disk track address.

DEVICE_TYPE – The disk device type, for example 3380 or 3390.

TRACKS_CYL – The number of tracks per cylinder for this disk type.

CYL_VOLUME – The total number of cylinders per volume for the disk volume.

ALLOC_TRK – The total number of tracks allocated for this VSAM Space entry.

USED_TRK – The number of tracks currently allocated to a VSAM dataset.

TRACK_CAPACITY – The maximum amount of data that could be stored on one track. This is used for comparing one disk geometry to another. The actual amount of data per track will depend on the phyical block size for each VSAM dataset.

TOTAL_ALLOC – The maximum amount of data that could be stored in this VSAM Space, based on the number of tracks and the track capacity.

TOTAL_USED – The maximum amount of data that could be stored in the portion of the VSAM Space which is currently in use based on the number of used tracks and the track capacity.

BIM-VSUM/PC

Sample Reports

Top VSAM Files (Total Allocated RBA)

12/3/99 02:33:12 pm

Cluster Name	File Type	Total Allocated	Total Used	% Used	VOLUME
E911SQL.DDSK12	NONINDEXED	364,953,600	364,449,792	99.86%	USER02
E911SQL.DDSK9	NONINDEXED	199,680,000	199,618,560	99.97%	USER03
ATR.OATS008.PROD.MISC	INDEXED	192,238,080	184,180,736	95.81%	USER01
ATR.SYST.FILE21	INDEXED	183,435,264	111,154,176	60.60%	USER01
ATR.SYST.FILE17	INDEXED	153,784,320	115,479,552	75.09%	USER01
E911SQL.DDSK8	NONINDEXED	142,540,800	141,950,976	99.59%	USER03
ATR.SYST.FILE16	INDEXED	92,639,232	87,072,768	93.99%	USER01
ATR.OATS004.PROD.PDET	INDEXED	85,386,240	85,223,424	99.81%	USER01
ATR.OATS006.PROD.TAX.MISC	INDEXED	75,970,560	67,307,520	88.60%	USER01
VSE.E911LIB.LIBRARY	SAMDATASET	74,956,800	74,956,800	100.00%	DOSRES
E911SQL.DDSK5	NONINDEXED	65,126,400	64,671,744	99.30%	USER03
ATR.SYST.FILE18	INDEXED	49,467,392	49,442,304	99.95%	USER01
BL.BUS.LIC.PRIMARY.TEST	INDEXED	44,946,432	44,929,024	99.96%	USER01
BL.NAME.TEST	INDEXED	38,251,520	38,157,312	99.75%	USER01
E911SQL.DDSK4	NONINDEXED	38,092,800	38,055,936	99.90%	USER02
E911SQL.DDSK2	NONINDEXED	37,478,400	36,888,576	98.43%	USER02
E911SQL.DDSK14	NONINDEXED	30,720,000	30,584,832	99.56%	USER03
DFHTEMP	NONINDEXED	30,720,000	30,720,000	100.00%	DOSRES
TR.TR01F02.REC.INT.INDEX	INDEXED	30,021,120	25,870,848	86.18%	USER01
TR.TR01F01.REC.INTANG	INDEXED	27,509,760	26,464,256	96.20%	USER01
CSP.E911.FZERSAM.ALF	INDEXED	26,595,328	11,087,872	41.69%	DOSRES
CSP.E911.FZERSAM.ALF	INDEXED	26,595,328	22,585,344	84.92%	USER03
CSP.E911MSL.MSL	INDEXED	24,834,048	16,760,832	67.49%	DOSRES
E911SQL.DDSK3	NONINDEXED	20,889,600	20,545,536	98.35%	DOSRES
E911SQL.DDSK3	NONINDEXED	20,889,600	20,545,536	98.35%	USER03
E911.TMON01.COLLECT	NUMBERED	19,046,400	19,046,400	100.00%	USER03
OASIS.SYST.FILE18	INDEXED	17,350,144	1,193,472	6.88%	USER01
OASIS.SYST.FILE19	INDEXED	17,350,144	1,770,496	10.20%	USER01
ATR.SYST.FILE19	INDEXED	17,350,144	13,310,976	76.72%	USER01
OASIS.SYST.FILE16	INDEXED	17,318,400	614,400	3.55%	USER01
BL.PAYMENT.FILE.TEST	INDEXED	14,162,944	14,155,776	99.95%	USER01
CSP.USR1MSL.MSL	INDEXED	12,417,024	4,970,496	40.03%	DOSRES
SQL.BDISK.STARTER.DB	NONINDEXED	12,364,800	12,189,696	98.58%	USER02
BL.GROSS.RECEIPT.TEST	INDEXED	11,705,344	11,694,080	99.90%	USER01
OASIS.SYST.FILE02	INDEXED	10,080,256	10,080,256	100.00%	USER01
OASIS.SYST.FILE01	INDEXED	10,057,728	10,057,728	100.00%	USER01
CSP.FZERSAM.ALF	INDEXED	9,484,288	6,160,384	64.95%	USER02
BL.NAME.STREET.INDEX.TEST	INDEXED	9,392,640	9,240,576	98.38%	USER01
DOS.WORKFILE.SYS001.SORT.BG.C077777.M438	SAMDATASET	9,331,200	0	0.00%	SYSWK1
DOS.WORKFILE.SYS001.SORT.BG.C091127.M438	SAMDATASET	9,331,200	0	0.00%	DOSRES
E9.STREET.INDEX	INDEXED	9,000,960	8,991,744	99.90%	USER03
E911SQL.DDSK13	NONINDEXED	8,601,600	8,171,520	95.00%	USER02
OASIS.SYST.FILE03	INDEXED	7,912,448	7,912,448	100.00%	USER01
CICS.E911.DFHTEMP	NONINDEXED	7,077,888	7,077,888	100.00%	USER03
OASIS.TEMP.FILE01	INDEXED	5,936,128	0	0.00%	USER01
E911SQL.DDSK10	NONINDEXED	4,915,200	4,435,968	90.25%	USER02
BL.BUS.LIC.INDEX.TEST	INDEXED	4,832,256	4,585,472	94.89%	USER01
CSP.V3R3M0.UTILITY.ALF	INDEXED	4,055,040	4,014,080	98.99%	DOSRES
PC.HOST.TRANSFER.FILE	INDEXED	4,021,248	4,012,032	99.77%	DOSRES
OASIS.SYST.FILE21	INDEXED	3,718,144	2,355,200	63.34%	USER01
	TOTALS	**2,334,536,192**	**2,074,745,344**		

Top VSAM Files (Most EXCPs)

11/10/99 01:33:30 pm

VSAM Cluster Name	Type	Total EXCP	Data	Index	Retrieved	Volume
SQL.BDISK.STARTER.DB	NONINDEXED	154,495,124	154,495,124	0	0	USER02
E911SQL.DDSK12	NONINDEXED	130,672,984	130,672,984	0	0	USER02
E911SQL.DDSK8	NONINDEXED	50,698,553	50,698,553	0	0	USER03
E911SQL.DDSK9	NONINDEXED	34,653,274	34,653,274	0	0	USER03
E911SQL.DDSK5	NONINDEXED	24,108,308	24,108,308	0	0	USER03
CSP.E911.FZERSAM.ALF	INDEXED	22,673,799	21,621,164	1,052,635	72,989,267	USER03
E911SQL.DDSK2	NONINDEXED	13,918,439	13,918,439	0	0	USER02
E911.TMON01.COLLECT	NUMBERED	9,515,236	9,515,236	0	5,050,770	USER03
E911SQL.DDSK3	NONINDEXED	8,249,277	8,249,277	0	0	USER03
VSE.CONTROL.FILE	INDEXED	7,560,046	3,855,125	3,704,921	5,155,521	DOSRES
E911SQL.DDSK3	NONINDEXED	6,585,929	6,585,929	0	0	DOSRES
E911SQL.DDSK4	NONINDEXED	5,653,239	5,653,239	0	0	USER02
CSP.E911.FZERSAM.ALF	INDEXED	4,050,751	3,847,225	203,526	12,227,801	DOSRES
CSP.V3R3M0.FZEMAPDS	NUMBERED	1,516,529	1,516,529	0	7,217,589	DOSRES
CICS.RSD	INDEXED	1,226,029	807,795	418,234	392,738	SYSWK1
ATR.OATS006.PROD.TAX.MISC	INDEXED	1,084,852	683,906	400,946	6,364,568	USER01
CICS2.RSD	INDEXED	929,953	378,501	551,452	168,769	SYSWK1
E9.STREET.INDEX	INDEXED	833,852	666,176	167,676	30,164,505	USER03
VSE.MESSAGE.ROUTING.FILE	INDEXED	784,246	391,969	392,277	0	DOSRES
VSE.TEXT.REPSTORY.FILE	INDEXED	580,054	360,080	219,974	578,477	DOSRES
CSP.USER.MESSAGE	NUMBERED	392,109	392,109	0	16,381,273	USER02
ATR.OATS004.PROD.PDET	INDEXED	384,119	165,531	218,588	2,274,839	USER01
E911SQL.DDSK10	NONINDEXED	351,554	351,554	0	0	USER02
CICS170.DFHCSD	INDEXED	269,159	174,844	94,315	2,667,342	DOSRES
CSP.V3R3M0.FZEMSG	NUMBERED	248,521	248,521	0	1,055,331	DOSRES
CSP.V3R3M0.EZEMSG	NUMBERED	230,996	230,996	0	647,158	DOSRES
CICS.E911.DFHTEMP	NONINDEXED	191,236	191,236	0	0	USER03
ATR.SYST.FILE19	INDEXED	154,817	86,369	68,448	4	USER01
CSP.E911MSL.MSL	INDEXED	145,232	116,575	28,657	751,291	DOSRES
DFHTEMP	NONINDEXED	144,079	144,079	0	0	DOSRES
ATR.OATS008.PROD.MISC	INDEXED	93,817	53,898	39,919	98,331	USER01
BL.NAME.TEST	INDEXED	80,942	42,504	38,438	32,342	USER01
CICS2.ONLINE.PROB.DET.FILE	INDEXED	80,309	78,239	2,070	75,128	SYSWK1
VSE.ONLINE.PROB.DET.FILE	INDEXED	72,030	70,091	1,939	68,775	DOSRES
CICS.PROG.RSD	INDEXED	56,750	23,318	33,432	15,031	SYSWK1
CSP.V3R3M0.FZETUTOR	NUMBERED	53,144	53,144	0	81,837	DOSRES
VSAUSER.CAT.USER02	CATALOG	51,022	48,079	2,943	98,817	USER02
VSAUSER.CAT.USER01	CATALOG	50,873	49,994	879	91,586	USER01
PC.HOST.TRANSFER.FILE	INDEXED	50,188	46,293	3,895	780	DOSRES
CSP.DCAPRMG	INDEXED	49,747	49,236	511	80,201	USER02
CSP.V3R2M2.UTILITY.ALF	INDEXED	45,257	43,589	1,668	367,259	USER02
CSP.E911.FZEMAPDS	NUMBERED	43,446	43,446	0	220,591	DOSRES
E911SQL.DDSK14	NONINDEXED	40,613	40,613	0	0	USER03
CSP.E911.UTILITY.ALF	INDEXED	37,429	33,642	3,787	233,038	DOSRES
VSMUSER.CAT.USER03	CATALOG	27,617	24,688	2,929	50,879	USER03
ATR.SYST.FILE17	INDEXED	26,889	24,861	2,028	138	USER01
ATR.SYST.FILE21	INDEXED	26,205	24,289	1,916	34	USER01
CSP.V3R3M0.UTILITY.ALF	INDEXED	21,892	16,890	5,002	131,842	DOSRES
ATR.SYST.FILE16	INDEXED	20,757	19,086	1,671	202	USER01
BL.GROSS.RECEIPT.TEST	INDEXED	20,042	11,606	8,436	11,952	USER01
		483,251,265	475,578,153	7,673,112	165,746,006	

Top VSAM Files (Most CI SPLITS)

11/10/99 01:32:57 pm

Cluster Name	CI Splits	CA Splits	Inserts	CI Free	CA Free	Volume
ATR.SYST.FILE19	2,272	22	35,954	15	10	USER01
CICS.RSD	1,070	12	342,776	20	20	SYSWK1
E9.STREET.INDEX	570	9	30,229	5	5	USER03
CICS.PROG.RSD	553	6	6,060	20	20	SYSWK1
CICS2.RSD	505	5	126,968	20	20	SYSWK1
ATR.OATS008.PROD.MISC	391	42	8,675	5	5	USER01
CSP.V3R3M0.UTILITY.ALF	317	62	2,671	5	10	DOSRES
CSP.E911MSL.MSL	289	9	2,261	5	10	DOSRES
CICS170.DFHCSD	179	2	9,426	10	10	DOSRES
VSE.CONTROL.FILE	174	30	2,763	0	0	DOSRES
TR.TR01F02.REC.INT.INDEX	160	0	168	0	10	USER01
CSP.E911.FZERSAM.ALF	140	21	363,430	0	0	USER03
CSP.V3R3M0.SAMPLE.MSL	103	5	343	0	0	DOSRES
CSP.V3R3M0.UTILITY.MSL	100	3	621	0	0	DOSRES
CSP.E911.SAMPLE.MSL	77	5	166	0	0	DOSRES
CICS.CSD	72	2	1,580	0	0	DOSRES
CSP.E911.UTILITY.ALF	54	1	213	0	0	DOSRES
TR.TR01F01.REC.INTANG	49	1	297	0	10	USER01
BL.NAME.STREET.INDEX.TEST	39	7	102	0	0	USER01
ATR.OATS006.PROD.TAX.MISC	33	1	402	5	10	USER01
CSP.E911.UTILITY.MSL	33	2	66	0	0	DOSRES
ATR.OATS004.PROD.PDET	21	11	2,992	10	5	USER01
OASIS.SYST.FILE02	15	5	50,816	10	0	USER01
PC.HOST.TRANSFER.FILE	13	7	256	0	50	DOSRES
BL.GROSS.RECEIPT.TEST	10	7	240	0	0	USER01
CSP.BTCH.FZERSAM.ALF	10	2	11,548	10	10	USER02
BL.NAME.TEST	9	1	104	0	0	USER01
BL.PAYMENT.FILE.TEST	9	5	138	0	0	USER01
OASIS.SYST.FILE03	9	2	47,523	0	0	USER01
VSE.TEXT.REPSTORY.FILE	8	3	24	0	0	DOSRES
CSP.E911.APPLDO.MSL	7	0	20	0	0	DOSRES
CSP.V3R3M0.APPLDO.MSL	7	0	20	0	0	DOSRES
CSP.USR1MSL.MSL	4	2	10	0	0	DOSRES
BL.BUS.LIC.PRIMARY.TEST	2	0	61	13	10	USER01
CSP.DCAPRMG	2	0	15	0	0	DOSRES
	7,306	292	1,048,938			

Top VSAM Files (Most CA SPLITS)

11/10/99 01:33:39 pm

Cluster Name	CA Splits	CI Splits	Inserts	CA Free	CI_Free	VOLUME
CSP.V3R3M0.UTILITY.ALF	62	317	2,671	10	5	DOSRES
ATR.OATS008.PROD.MISC	42	391	8,675	5	5	USER01
ATR.SYST.FILE19	22	2,272	35,954	10	15	USER01
CSP.E911.FZERSAM.ALF	21	140	363,430	0	0	USER03
ATR.OATS004.PROD.PDET	11	21	2,992	5	10	USER01
E9.STREET.INDEX	9	570	30,229	5	5	USER03
CSP.E911MSL.MSL	9	289	2,261	10	5	DOSRES
BL.NAME.STREET.INDEX.TEST	7	39	102	0	0	USER01
PC.HOST.TRANSFER.FILE	7	13	256	50	0	DOSRES
BL.GROSS.RECEIPT.TEST	7	10	240	0	0	USER01
OASIS.SYST.FILE02	5	15	50,816	0	10	USER01
BL.PAYMENT.FILE.TEST	5	9	138	0	0	USER01
OASIS.SYST.FILE03	2	9	47,523	0	0	USER01
CSP.USR1MSL.MSL	2	4	10	0	0	DOSRES
TR.TR01F01.REC.INTANG	1	49	297	10	0	USER01
ATR.OATS006.PROD.TAX.MISC	1	33	402	10	5	USER01
BL.NAME.TEST	1	9	104	0	0	USER01
TR.TR01F02.REC.INT.INDEX	0	160	168	10	0	USER01
BL.BUS.LIC.PRIMARY.TEST	0	2	61	10	13	USER01
ATR.SYST.FILE16	0	0	0	10	15	USER01
ATR.SYST.FILE17	0	0	0	0	10	USER01
ATR.SYST.FILE18	0	0	0	0	10	USER01
ATR.SYST.FILE21	0	0	0	10	40	USER01
BL.BUS.LIC.INDEX.TEST	0	0	0	0	0	USER01
CICS.E911.DFHTEMP	0	0	0	0	0	
CSP.E911.FZERSAM.ALF	0	0	123,170	0	0	DOSRES
CSP.FZERSAM.ALF	0	0	1	10	10	USER02
DFHTEMP	0	0	0	0	0	
DOS.WORKFILE.SYS001.SORT.BG.C077777.M	0	0	0	0	0	
DOS.WORKFILE.SYS001.SORT.BG.C091127.M	0	0	0	0	0	
E911.TMON01.COLLECT	0	0	4,557	0	0	
E911SQL.DDSK10	0	0	0	0	0	
E911SQL.DDSK12	0	0	0	0	0	
E911SQL.DDSK13	0	0	0	0	0	
E911SQL.DDSK14	0	0	0	0	0	
E911SQL.DDSK2	0	0	0	0	0	
E911SQL.DDSK3	0	0	0	0	0	
E911SQL.DDSK3	0	0	0	0	0	
E911SQL.DDSK4	0	0	0	0	0	
E911SQL.DDSK5	0	0	0	0	0	
E911SQL.DDSK8	0	0	0	0	0	
E911SQL.DDSK9	0	0	0	0	0	
OASIS.SYST.FILE01	0	0	0	5	5	USER01
OASIS.SYST.FILE16	0	0	0	10	15	USER01
OASIS.SYST.FILE18	0	0	0	0	10	USER01
OASIS.SYST.FILE19	0	0	0	10	15	USER01
OASIS.SYST.FILE21	0	0	0	10	15	USER01
OASIS.TEMP.FILE01	0	0	0	0	5	USER01
SQL.BDISK.STARTER.DB	0	0	0	0	0	
VSE.E911LIB.LIBRARY	0	0	0	0	0	
	214	4,352	674,057			

Top VSAM Files (Most Fragmented Data Component)

11/10/99 01:32:34 pm

VSAM Cluster Name	Fragmented	Extents	CA Splits	Inserts	Volume
BL.BUS.LIC.INDEX.TEST	2,275	18	0	0	USER01
VSAUSER.CAT.USER01	2,165	4	0	0	USER01
ATR.OATS004.PROD.PDET	2,102	2	11	2,992	USER01
BL.GROSS.RECEIPT.TEST	2,034	10	7	240	USER01
BL.PAYMENT.FILE.TEST	2,026	8	5	138	USER01
BL.BUS.LIC.PRIMARY.TEST	1,790	73	0	61	USER01
OASIS.SYST.FILE04	1,711	28	0	0	USER01
OASIS.SYST.FILE03	1,700	39	2	47,523	USER01
OASIS.SYST.FILE02	1,684	122	5	50,816	USER01
OASIS.SYST.FILE17	533	6	0	0	USER01
CICS.RSD	490	11	12	342,776	SYSWK1
E9.STREET.INDEX	407	11	9	30,229	USER03
CSP.BTCH.FZERSAM.ALF	368	5	2	11,548	USER02
OASIS.SYST.FILE01	334	24	0	0	USER01
PC.HOST.TRANSFER.FILE	138	9	7	256	DOSRES
ATR.SYST.FILE18	124	3	0	0	USER01
E911SQL.DDSK12	88	2	0	0	USER02
CICS2.RSD	49	4	5	126,968	SYSWK1
CICS.PROG.RSD	13	6	6	6,060	SYSWK1
CSP.V3R3M0.SAMPLE.MSL	8	4	5	343	DOSRES
CSP.E911.SAMPLE.MSL	6	4	5	166	DOSRES
CSP.E911.UTILITY.MSL	6	3	2	66	DOSRES
VSE.MESSAGES.ONLINE	4	9	0	0	DOSRES
VSESP.USER.CATALOG	3	2	0	0	SYSWK1
ATR.SYST.FILE19	2	1	22	35,954	USER01
OASIS.SYST.FILE16	2	1	0	0	USER01
OASIS.SYST.FILE18	2	1	0	0	USER01
OASIS.SYST.FILE19	2	1	0	0	USER01

Top VSAM Files (Most Fragmented Index Component)

11/10/99 01:33:47 pm

VSAM Cluster Name	Fragmented	Extents	CA Splits	Inserts	Volume
TR.TR01F01.REC.INTANG	2,237	1	1	297	USER01
ATR.OATS006.PROD.TAX.MISC	1,904	1	1	402	USER01
ATR.SYST.FILE16	1,156	1	0	0	USER01
ATR.OATS008.PROD.MISC	1,070	1	42	8,675	USER01
ATR.SYST.FILE17	831	1	0	0	USER01
OASIS.SYST.FILE02	724	123	5	50,816	USER01
CSP.E911MSL.MSL	554	1	9	2,261	DOSRES
ATR.SYST.FILE20	536	2	0	0	USER01
ATR.SYST.FILE19	506	2	22	35,954	USER01
CSP.USER.WORK	465	1	0	0	SYSWK1
E9.STREET.INDEX	417	1	9	30,229	USER03
BL.NAME.STREET.INDEX.TEST	383	1	7	102	USER01
CSP.E911.UTILITY.ALF	382	1	1	213	DOSRES
OASIS.SYST.FILE01	374	2	0	0	USER01
TR.TR01F02.REC.INT.INDEX	198	1	0	168	USER01
CSP.USR1MSL.MSL	150	1	2	10	DOSRES
BL.NAME.TEST	141	1	1	104	USER01
OASIS.SYST.FILE20	91	2	0	0	USER01
OASIS.SYST.FILE19	61	2	0	0	USER01
PC.HOST.TRANSFER.FILE	44	1	7	256	DOSRES
OASIS.SYST.FILE18	31	2	0	0	USER01
CSP.V3R3M0.UTILITY.ALF	16	5	62	2,671	DOSRES
CICS.RSD	11	1	12	342,776	SYSWK1
CICS170.DFHCSD	10	1	2	9,426	DOSRES
CSP.E911.FZERSAM.ALF	3	1	0	123,170	DOSRES

Top VSAM Files - Most DASD Extents (Data Component)

11/10/99 01:33:09 pm

VSAM Cluster Name	Extents	CA Splits	Inserts	Fragmented	Volume
OASIS.SYST.FILE02	122	5	50,816	1,684	USER01
BL.BUS.LIC.PRIMARY.TEST	73	0	61	1,790	USER01
OASIS.SYST.FILE03	39	2	47,523	1,700	USER01
VSE.CONTROL.FILE	32	30	2,763	0	DOSRES
BL.NAME.TEST	29	1	104	0	USER01
OASIS.SYST.FILE04	28	0	0	1,711	USER01
OASIS.SYST.FILE01	24	0	0	334	USER01
BL.BUS.LIC.INDEX.TEST	18	0	0	2,275	USER01
VSE.E911LIB.LIBRARY	15	0	0	0	DOSRES
CICS.RSD	11	12	342,776	490	SYSWK1
E9.STREET.INDEX	11	9	30,229	407	USER03
BL.GROSS.RECEIPT.TEST	10	7	240	2,034	USER01
PC.HOST.TRANSFER.FILE	9	7	256	138	DOSRES
VSE.MESSAGES.ONLINE	9	0	0	4	DOSRES
BL.PAYMENT.FILE.TEST	8	5	138	2,026	USER01
CICS.PROG.RSD	6	6	6,060	13	SYSWK1
OASIS.SYST.FILE17	6	0	0	533	USER01
CSP.BTCH.FZERSAM.ALF	5	2	11,548	368	USER02
CSP.E911.FZETUTOR	5	0	6,356	1	DOSRES
CSP.V3R3M0.FZETUTOR	5	0	6,356	0	DOSRES
CICS2.RSD	4	5	126,968	49	SYSWK1
CSP.E911.SAMPLE.MSL	4	5	166	6	DOSRES
CSP.V3R3M0.SAMPLE.MSL	4	5	343	8	DOSRES
CSP.V3R3M0.UTILITY.MSL	4	3	621	0	DOSRES
VSAUSER.CAT.USER01	4	0	0	2,165	USER01
ATR.SYST.FILE18	3	0	0	124	USER01
CSP.E911.UTILITY.MSL	3	2	66	6	DOSRES
ATR.OATS004.PROD.PDET	2	11	2,992	2,102	USER01
BL.NAME.STREET.INDEX.TEST	2	7	102	0	USER01
CICS2.TD.INTRA	2	0	0	0	SYSWK1
CSP.E911.URUALF.ALF	2	0	0	0	DOSRES
CSP.E911.UTILITY.ALF	2	1	213	0	DOSRES
CSP.USER.WORK	2	0	0	0	SYSWK1
CSP.V3R3M0.URUALF.ALF	2	0	0	0	DOSRES
E911SQL.DDSK12	2	0	0	88	USER02
OASIS.SYST.FILE11	2	0	0	0	USER01
VSAUSER.CAT.USER02	2	0	0	0	USER02
VSESP.USER.CATALOG	2	0	0	3	SYSWK1
VSMUSER.CAT.USER03	2	0	0	0	USER03
	515	125	636,697		

Top VSAM Files Most FreeSpace (Data Component)

11/10/99 01:33:56 pm

VSAM Cluster Name	Type	Freespace	Allocated	%_Free	Volume
ATR.SYST.FILE21	INDEXED	71,884,800	182,476,800	39.39%	USER01
ATR.SYST.FILE17	INDEXED	38,092,800	152,985,600	24.90%	USER01
OASIS.SYST.FILE16	INDEXED	16,629,760	17,203,200	96.67%	USER01
OASIS.SYST.FILE18	INDEXED	16,056,320	17,203,200	93.33%	USER01
OASIS.SYST.FILE19	INDEXED	15,482,880	17,203,200	90.00%	USER01
CSP.E911.FZERSAM.ALF	INDEXED	15,155,200	26,214,400	57.81%	DOSRES
ATR.OATS008.PROD.MISC	INDEXED	10,444,800	190,464,000	5.48%	USER01
DOS.WORKFILE.SYS001.SORT.BG.C077777.M4381	SAMDATASET	9,331,200	9,331,200	100.00%	SYSWK1
DOS.WORKFILE.SYS001.SORT.BG.C091127.M4381	SAMDATASET	9,331,200	9,331,200	100.00%	DOSRES
ATR.OATS006.PROD.TAX.MISC	INDEXED	8,601,600	75,571,200	11.38%	USER01
CSP.E911MSL.MSL	INDEXED	7,987,200	24,576,000	32.50%	DOSRES
CSP.USR1MSL.MSL	INDEXED	7,372,800	12,288,000	60.00%	DOSRES
OASIS.TEMP.FILE01	INDEXED	5,857,280	5,857,280	100.00%	USER01
CSP.E911.FZERSAM.ALF	INDEXED	5,734,400	26,214,400	21.88%	USER03
ATR.SYST.FILE16	INDEXED	5,529,600	92,160,000	6.00%	USER01
ATR.SYST.FILE19	INDEXED	4,014,080	17,203,200	23.33%	USER01
TR.TR01F02.REC.INT.INDEX	INDEXED	3,686,400	29,491,200	12.50%	USER01
CSP.FZERSAM.ALF	INDEXED	3,276,800	9,420,800	34.78%	USER02
CICS2.DUMPA	SAMDATASET	2,580,480	2,580,480	100.00%	SYSWK1
CICS.DUMPA	SAMDATASET	2,573,312	2,580,480	99.72%	DOSRES
ATR.SYST.FILE20	INDEXED	2,293,760	2,867,200	80.00%	USER01
OASIS.SYST.FILE20	INDEXED	2,293,760	2,867,200	80.00%	USER01
VSESP.USER.CATALOG	CATALOG	1,978,368	2,072,576	95.45%	SYSWK1
OASIS.SYST.FILE21	INDEXED	1,351,680	3,686,400	36.67%	USER01
CICS.DUMPB	SAMDATASET	1,283,072	1,290,240	99.44%	DOSRES
CICS2.DUMPB	SAMDATASET	1,283,072	1,290,240	99.44%	SYSWK1
CICS2.AUXTRACE	SAMDATASET	1,225,728	1,244,160	98.52%	SYSWK1
E9.STREET.INDEX	INDEXED	1,216,512	8,921,088	13.64%	USER03
CSP.E911.UTILITY.ALF	INDEXED	884,736	2,359,296	37.50%	DOSRES
VSE.TEXT.REPSTORY.FILE	INDEXED	860,160	2,334,720	36.84%	DOSRES
CSP.E911.APPLDO.MSL	INDEXED	663,552	774,144	85.71%	DOSRES
CSP.V3R3M0.APPLDO.MSL	INDEXED	663,552	774,144	85.71%	DOSRES
CICS170.DFHCSD	INDEXED	614,400	2,457,600	25.00%	DOSRES
BL.PAYMENT.FILE.TEST	INDEXED	614,400	14,131,200	4.35%	USER01
TR.TR01F01.REC.INTANG	INDEXED	614,400	27,033,600	2.27%	USER01
E911SQL.DDSK2	NONINDEXED	589,824	37,478,400	1.57%	USER02
E911SQL.DDSK8	NONINDEXED	589,824	142,540,800	0.41%	USER03
E911SQL.DDSK12	NONINDEXED	503,808	364,953,600	0.14%	USER02
E911SQL.DDSK10	NONINDEXED	479,232	4,915,200	9.75%	USER02
E911SQL.DDSK5	NONINDEXED	454,656	65,126,400	0.70%	USER03
E911SQL.DDSK13	NONINDEXED	430,080	8,601,600	5.00%	USER02
E911SQL.DDSK3	NONINDEXED	344,064	20,889,600	1.65%	DOSRES
E911SQL.DDSK3	NONINDEXED	344,064	20,889,600	1.65%	USER03
CSP.USER.MESSAGE	NUMBERED	221,184	331,776	66.67%	USER02
CICS.PROG.RSD	INDEXED	221,184	1,769,472	12.50%	SYSWK1
SQL.BDISK.STARTER.DB	NONINDEXED	175,104	12,364,800	1.42%	USER02
TR.TRC1F01.REC.INTANG	INDEXED	163,840	204,800	80.00%	USER01
DOS.WORKFILE.SYSLNK.BG	SAMDATASET	157,696	158,720	99.35%	SYSWK1
DOS.WORKFILE.SYSLNK.FA	SAMDATASET	157,696	158,720	99.35%	DOSRES
E911SQL.DDSK14	NONINDEXED	135,168	30,720,000	0.44%	USER03
		282,431,488	1,705,563,136		

Top VSAM Files Most Defined FreeSpace

11/10/99 01:34:04 pm

VSAM Cluster Name	Defined Freespace	Total Allocated	CA_Free	CI Free	Volume
ATR.SYST.FILE21	50,886,900	183,435,264	10	40	USER01
ATR.SYST.FILE16	20,369,565	92,639,232	10	15	USER01
ATR.OATS008.PROD.MISC	15,840,768	192,238,080	5	5	USER01
ATR.OATS004.PROD.PDET	11,555,476	85,386,240	5	10	USER01
ATR.SYST.FILE17	11,500,500	153,784,320	0	10	USER01
BL.BUS.LIC.PRIMARY.TEST	9,993,043	44,946,432	10	13	USER01
ATR.OATS006.PROD.TAX.MISC	9,624,420	75,970,560	10	5	USER01
ATR.SYST.FILE18	4,920,000	49,467,392	0	10	USER01
TR.TR01F01.REC.INTANG	2,752,512	27,509,760	10	0	USER01
TR.TR01F02.REC.INT.INDEX	2,752,512	30,021,120	10	0	USER01
CSP.E911MSL.MSL	1,674,108	24,834,048	10	5	DOSRES
CSP.FZERSAM.ALF	1,167,900	9,484,288	10	10	USER02
OASIS.SYST.FILE01	974,902	10,057,728	5	5	USER01
OASIS.SYST.FILE02	959,400	10,080,256	0	10	USER01
OASIS.SYST.FILE21	548,967	3,718,144	10	15	USER01
E9.STREET.INDEX	517,972	9,000,960	5	5	USER03
PC.HOST.TRANSFER.FILE	442,368	4,021,248	50	0	DOSRES
OASIS.SYST.FILE19	404,502	17,350,144	10	15	USER01
CSP.BTCH.FZERSAM.ALF	233,580	2,111,488	10	10	USER02
OASIS.SYST.FILE17	225,500	2,284,544	0	10	USER01
CICS.PROG.RSD	160,632	1,804,800	20	20	SYSWK1
CSP.V3R3M0.UTILITY.ALF	160,407	4,055,040	10	5	DOSRES
ATR.SYST.FILE19	134,834	17,350,144	10	15	USER01
OASIS.SYST.FILE16	134,834	17,318,400	10	15	USER01
CICS170.DFHCSD	116,790	2,494,464	10	10	DOSRES
OASIS.SYST.FILE04	114,800	1,184,768	0	10	USER01
OASIS.SYST.FILE18	114,800	17,350,144	0	10	USER01
ATR.SYST.FILE20	86,030	2,904,064	0	15	USER01
OASIS.SYST.FILE20	86,030	2,904,064	0	15	USER01
CICS.RSD	80,316	2,910,720	20	20	SYSWK1
CICS2.RSD	80,316	1,362,432	20	20	SYSWK1
VSE.MESSAGE.ROUTING.FILE	28,893	146,432	7	15	DOSRES
OASIS.SYST.FILE05	12,300	155,648	0	10	USER01
OASIS.SYST.FILE08	8,200	105,984	0	10	USER01
OASIS.SYST.FILE11	8,200	188,416	0	5	USER01
OASIS.SYST.FILE09	4,100	65,024	0	10	USER01
OASIS.SYST.FILE15	4,100	65,024	0	10	USER01
OASIS.SYST.FILE07	2,050	65,024	0	5	USER01
OASIS.SYST.FILE10	2,050	65,024	0	5	USER01
OASIS.SYST.FILE12	2,050	65,024	0	5	USER01
	148,686,627	1,100,901,888			

Top VSAM Files (Most VSAM Requests)

11/10/99 01:33:18 pm

VSAM Cluster Name	Total Requests	Retrieved	Inserts	EXCPs	Volume
CSP.E911.FZERSAM.ALF	73,716,707	72,989,267	363,430	22,673,799	USER03
E9.STREET.INDEX	30,211,056	30,164,505	30,229	833,852	USER03
CSP.USER.MESSAGE	16,382,140	16,381,273	171	392,109	USER02
CSP.E911.FZERSAM.ALF	12,475,009	12,227,801	123,170	4,050,751	DOSRES
CSP.V3R3M0.FZEMAPDS	7,218,510	7,217,589	921	1,516,529	DOSRES
ATR.OATS006.PROD.TAX.MISC	6,375,895	6,364,568	402	1,084,852	USER01
VSE.CONTROL.FILE	5,159,465	5,155,521	2,763	7,560,046	DOSRES
E911.TMON01.COLLECT	5,061,855	5,050,770	4,557	9,515,236	USER03
CICS170.DFHCSD	2,685,003	2,667,342	9,426	269,159	DOSRES
ATR.OATS004.PROD.PDET	2,324,958	2,274,839	2,992	384,119	USER01
CICS.RSD	1,121,284	392,738	342,776	1,226,029	SYSWK1
CSP.V3R3M0.FZEMSG	1,055,466	1,055,331	135	248,521	DOSRES
CSP.E911MSL.MSL	757,781	751,291	2,261	145,232	DOSRES
CSP.V3R3M0.EZEMSG	647,499	647,158	341	230,996	DOSRES
VSE.TEXT.REPSTORY.FILE	580,867	578,477	24	580,054	DOSRES
CICS2.RSD	437,644	168,769	126,968	929,953	SYSWK1
CSP.V3R2M2.UTILITY.ALF	367,259	367,259	0	45,257	USER02
OASIS.SYST.FILE01	328,006	272,968	0	9,599	USER01
CSP.E911.UTILITY.ALF	233,251	233,038	213	37,429	DOSRES
CSP.E911.FZEMAPDS	221,512	220,591	921	43,446	DOSRES
CSP.V3R3M0.UTILITY.ALF	136,865	131,842	2,671	21,892	DOSRES
ATR.OATS008.PROD.MISC	108,302	98,331	8,675	93,817	USER01
VSAUSER.CAT.USER02	98,817	98,817	0	51,022	USER02
VSAUSER.CAT.USER01	91,586	91,586	0	50,873	USER01
CSP.V3R3M0.FZETUTOR	88,193	81,837	6,356	53,144	DOSRES
OASIS.SYST.FILE02	81,217	30,098	50,816	9,656	USER01
CSP.DCAPRMG	80,347	80,201	31	49,747	USER02
CICS2.ONLINE.PROB.DET.FILE	78,207	75,128	0	80,309	SYSWK1
VSE.ONLINE.PROB.DET.FILE	69,984	68,775	0	72,030	DOSRES
TR.TR01F01.REC.INTANG	51,647	50,722	297	14,002	USER01
VSMUSER.CAT.USER03	50,879	50,879	0	27,617	USER03
CSP.BTCH.FZERSAM.ALF	49,863	27,811	11,548	17,509	USER02
OASIS.SYST.FILE03	49,705	1,225	47,523	4,695	USER01
ATR.SYST.FILE19	35,958	4	35,954	154,817	USER01
BL.NAME.TEST	32,876	32,342	104	80,942	USER01
CICS.PROG.RSD	30,415	15,031	6,060	56,750	SYSWK1
CSP.V3R2M2.FZEMSG	29,979	29,834	145	10,012	USER02
CSP.E911.FZEMSG	25,082	24,947	135	5,443	DOSRES
CICS.CSD	24,470	21,589	1,580	13,125	DOSRES
CSP.V3R3M0.UTILITY.MSL	23,576	22,219	621	13,110	DOSRES
BL.NAME.STREET.INDEX.TEST	21,743	21,641	102	7,088	USER01
CSP.E911.EZEMSG	20,591	20,250	341	5,070	DOSRES
CSP.USR1MSL.MSL	18,587	18,554	10	2,612	DOSRES
CSP.E911.DZGMSG	15,720	15,684	36	10,794	DOSRES
BL.GROSS.RECEIPT.TEST	12,712	11,952	240	20,042	USER01
CSP.V3R2M2.DZGMSG	11,361	11,322	39	6,680	USER02
CSP.V3R3M0.PRMUTIL.ALF	9,501	9,501	0	1,097	DOSRES
BL.BUS.LIC.PRIMARY.TEST	9,100	8,243	61	17,071	USER01
CSP.V3R2M0.PRMUTIL.ALF	9,091	9,091	0	1,728	USER02
VSESP.USER.CATALOG	8,962	8,962	0	4,904	SYSWK1
	168,736,503	166,349,513	1,185,045	52,734,566	