# CA Vtape™ Virtual Tape System

## CA Graphical Management Interface (CA GMI) User Guide

Release 12.6.00

# CA Technologies Product References

This document references the following CA products:

- CA 1® Tape Management (CA 1)
- CA Allocate™ DASD Space and Placement (CA Allocate)
- CA ASTEX™ Performance (CA ASTEX)
- CA Compress™ Data Compression (CA Compress)
- CA Common Services (CA Common Services)
- CA CREWS™ Catalog Recovery (CA CREWS)
- CA Datacom®/DB (CA Datacom)
- CA Disk™ Backup and Restore (CA Disk)
- CA Earl™ (CA Earl)
- CA Encryption Key Manager
- CA Graphical Management Interface (CA GMI)
- CA IDMS™/DB (CA IDMS)
- CA MasterCat™ VSAM Catalog Management (CA MasterCat)
- CA MIA Tape Sharing (CA MIA TS)
- CA MIM™ Resource Sharing (CA MIM RS)
- CA PDSMAN® PDS Library Management (CA PDSMAN)
- CA Storage Resource Manager (CA SRM)
- CA SYSVIEW® Performance Management (CA SYSVIEW)
- CA Tape Encryption
- CA TLMS® Tape Management (CA TLMS)
- CA Vantage™ Storage Resource Manager (CA Vantage)
- CA Vtape™ Virtual Tape System (CA Vtape)
- CA Vtape™ Virtual Tape System Peer To Peer Option (CA Vtape P2P Option)

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- Information about user communities and forums
- Product and documentation downloads
- CA Support policies and guidelines
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# Contents

# Chapter 1: Introducing CA GMI

**Note:** The following software versions were used to create the screen samples and examples in this guide:

- CA Vantage Windows Client Release 12.6
- CA Vantage Web Client Release 12.6
- CA Vantage Release 12.6

This section contains the following topics:



## About CA GMI

CA GMI is the graphical management interface product that allows you to view and manage mainframe activity from a PC. It consists of user-interface clients which interface with a z/OS server component to allow access to basic z/OS server functions.

The following user-interface clients are available:

**Windows Client**

This client provides full functionality. That is, you can manually perform view and analysis functions, filter and sort desired entries, zoom (drill-down) to related objects, and take actions upon selected entries. You can create customized colored reports in different formats, for example, tables and graphs in HTML, PDF, and XLS formats. These reports can be printed and exported to your PC directory, servers, intranet, and so on. The Windows Client has a Scheduler component that manages scheduled tasks defined in the Windows Client (for example, tasks scheduled using the View and Output Definitions, and Object Logging functions). You can create, manage, and view Summary Objects, Joined Objects, and Delta Objects. This client also provides designer wizards to create scripts to monitor and respond to any condition, exceptional or routine, in automatic ways. These automation services let you replace many manual processes of managing your system. It also has a JCL Management feature to manage JCL and includes the Host Config Client which you can use to set CA Vantage system parameters.

**Web Client**

As a browser interface, it can be used from any PC with internet access to the Web Client's application server. The current version of the Web Client provides the user-driven functionality of view and analysis, filtering and sorting, zooming, and the ability to take actions on selected entries. You can create customized colored reports in different formats, for example, tables and graphs in HTML, PDF, and XLS formats. These reports can be printed and exported to your PC directory, servers, intranet, and so on. The Web Client has a Scheduler component that manages scheduled tasks defined in the Web Client (for example, you can schedule output reports). You can create, manage, and view Joined Objects. You can view Summary Objects and Delta Objects.

**3270-based interface (View 3270 Client)**

This client provides partial functionality. It is limited to the user-driven functionality of view and analysis, filtering and sorting, zooming, and the ability to take actions on selected entries.

**Note:** The View 3270 Client is considered a character-based user-interface, not a graphic-based user-interface, so it is not discussed in this guide. For View 3270 Client installation and configuration information, see the *CA Vantage Configuration Guide*. For more information about using the View 3270 Client, see the chapter "Navigating the View 3270 Client" in the *CA Vantage User Guide*.

**Note:** This guide mostly displays examples from the Windows Client, which are similar in many respects to the Web Client. For more information about Web Client features, see the *CA Vantage Web Client Guide*.

CA GMI is included free of charge with many CA products. The CA GMI components only need to be installed once. However, you must configure the z/OS server component for each CA GMI enabled CA product you want to use CA GMI for, on each host where you want to use it. The following is the list of CA GMI enabled CA products:

- CA 1
- CA ASTEX
- CA CREWS
- CA Disk
- CA IDMS/DB
- CA Encryption Key Manager
- CA MasterCat
- CA PDSMAN
- CA SYSVIEW
- CA Tape Encryption
- CA TLMS

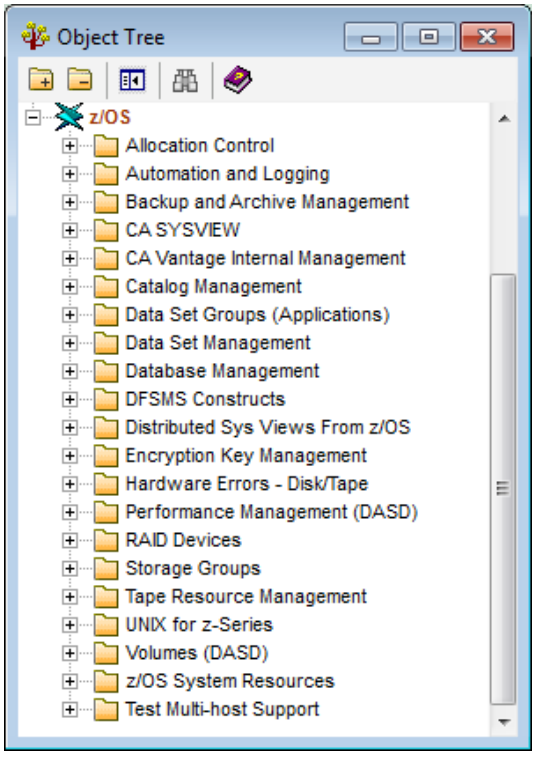
- CA Vantage
- CA Vtape

# The Object Tree

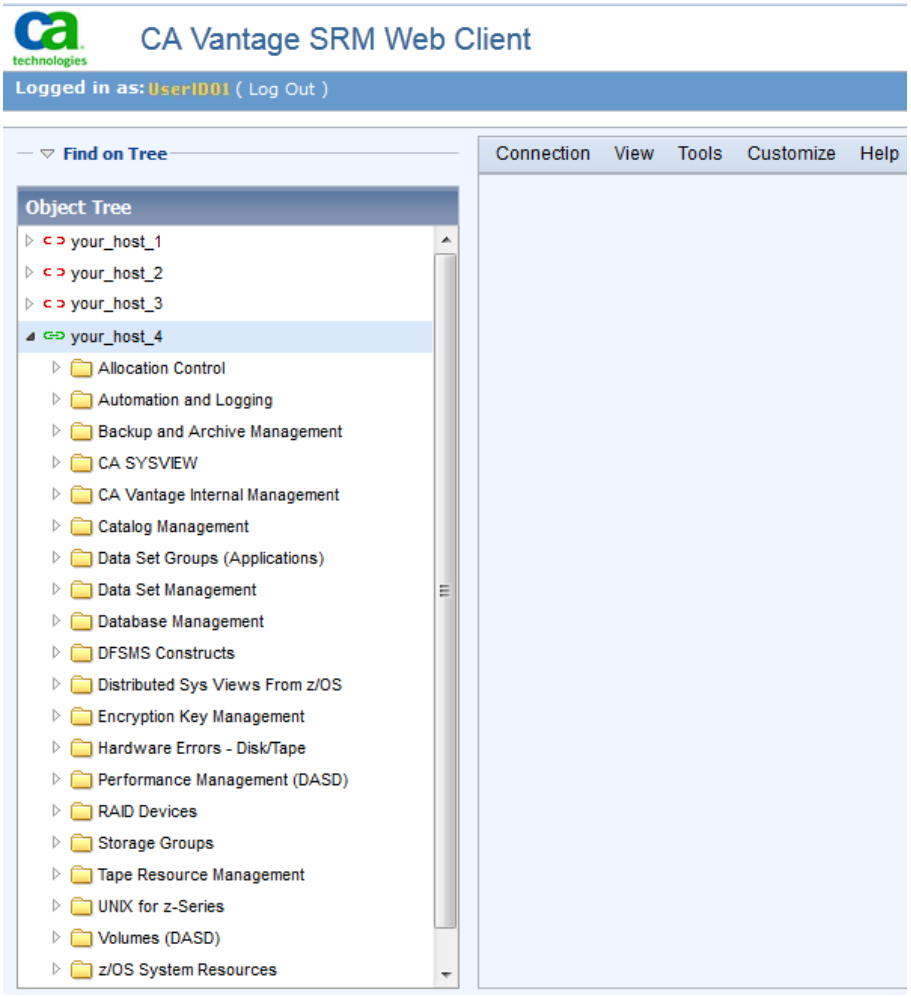
You access all user-interface functions from the main window of the user-interface. The Object Tree is a major feature on the main window of the user-interface.

The expandable and collapsible Object Tree lists all the source objects in a hierarchical tree structure. A folder icon represents a grouping of objects in the tree. When you expand a folder you will either view subfolders, the objects in the folder, or both. Different types of objects are represented by different icons and their title. A source object contains all the fields updated by the data collection services for that object. All fields-or any subset of them-can be included in user-defined views based on the source object.

In the Windows Client, the Object Tree is displayed in its own window. To display the Object Tree in the Windows Client, click the Object Tree icon in the Windows Client toolbar. The following is a sample of the Windows Client Object Tree window:



In the Web Client, the Object Tree is displayed in the Object Tree navigation pane in the Web Client main window. The following is an example of the Object Tree navigation pane in the Web Client main window:




You can access CA GMI enabled product objects using the user-interfaces, and the following basic CA Vantage storage management objects:

- CA Vantage Internal Management, which includes the following objects and sub-folders:
  - All Summary Objects
  - All Joined Objects
  - JCL Model List
  - Mailbox
  - Operator Commands

  - System Parameters
  - Sub-folder; Dictionary (objects: Dictionary Object Definitions Dictionary, Dictionary Field Definitions and so on)
  - Sub-folder; Memory Usage (objects: Memory Usage Summary, Memory usage above the bar, and so on)
  - Sub-folder, Status Monitors (objects: Internal Status Monitor, and Log and Warm Start Status)
  - Sub-folder; Messages (objects: System Activity Log, console messages and so on)
- Catalog Management (locations, relationships, entries, and space usage)
- DFSMS Constructs (all attributes)
- Hardware Errors (current and historical, and tape units)
- Storage Groups (space usage and other attributes)
- Volumes (DASD - space usage and other attributes)
- z/OS System Resources (APF list, Link list, and so on)

To find out more about these objects in the Windows Client, right-click the object in the object tree and click the Help on Object option. To display the Object Help in the Web Client, open the object, click Help, and then Object *object_name* Help.

# Standard CA GMI Features

CA GMI user-interfaces provide a rich set of standard features for working with your products and related object data. These features include the following:

- Simultaneous connection to several z/OS hosts, with separate views for each host, or all hosts consolidated into a single view
- Table views of all data, customizable with the ease of point-and-click
- Graphical views of any numeric data, easily customized, with a wide range of two-dimensional and three-dimensional features
- Filtering and sorting on any field
- Summary Totals and Statistics (aggregate functions such as total, average, minimum, and maximum)
- Scaling (KB, MB, GB, and so on) and color coding features
- Drill-down feature to zoom to related object data

- Wizards for simple or complex summaries (Summary Objects)

  **Note:** Currently, you can create and manage Summary Objects using only the Windows Client. You can view Summary Objects using both the Windows Client and the Web Client.

- Reporting features for customized and printed reports
- Multiple output formats, including:
  - Web page (HTML)
  - Email
  - PDF
  - Excel
  - Microsoft Access Database (MDB)

    **Note:** This output format is only available from the Windows Client.

  - Comma Separated Values (CSV)

    **Note:** This output format is only available from the Web Client.
- Schedulers for producing and sending report output on a regular basis
- JCL management (edit, model, drag and drop, substitute, submit, and schedule)

  **Note:** Currently, JCL management is only available in the Windows Client.

The following sections provide examples of some of the standard features of the Windows Client:

- Standard Object Views (see page 12)
- Standard View Options (see page 30)
- Other Standard Features (see page 49)

## Standard Object Views

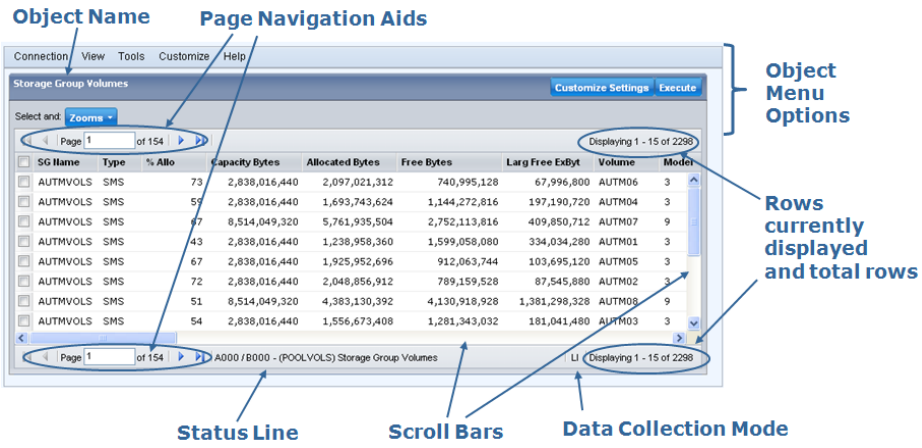
The standard object views in the Windows Client are the Table View, Graph View, and List View. The standard object view in the Web Client is the table view and you can create charts (graphs) of object information (data).

The following sections describe the Table View of both clients and the Graph View of the Windows Client.

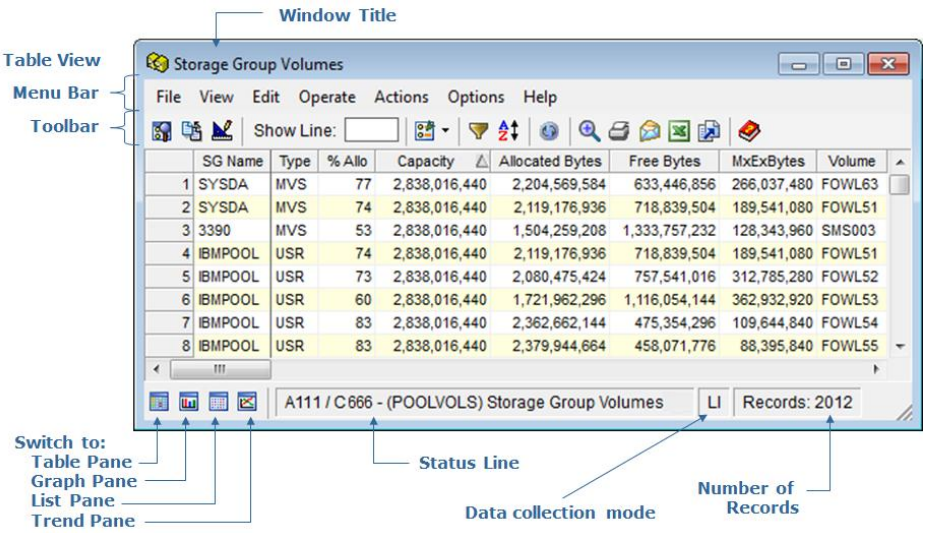
## Table Views

In both the Windows Client and the Web Client, the default view of objects is the Table View. The Table View displays object information (data) in configurable tables. You can change display characteristics (such as the width and number of table columns, the number of rows displayed, and so on) and characteristics that apply to specific objects, such as sort and filter criteria. The display and object-specific characteristics determine the appearance of the table. When you save your user-defined views of objects, you automatically save the display and object characteristics with it.

The following is a sample of an object table displayed by the Web Client:




The following is a sample of a Table View of an object displayed by the Windows Client:

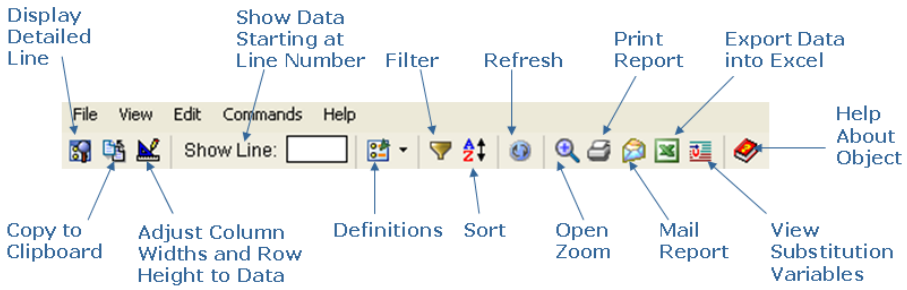


In the Windows Client, you can change the view type, for example from the Table View to the Graph View, or List View by clicking the *Switch to* icon in the bottom left corner of the object window, as shown in the sample Table View. In the Web Client, if you have created a chart (graphic) view of object data then the chart is displayed above the table.

## Table View Dialog Toolbar Options

The Web Client Customize Menu provides access to the Customize View Wizard and the Customize Report Wizard. The Customize View Wizard provides object view customize options such as: filter, sort, charting (object graphs), hide or display columns, rename columns, and so on. The Customize Report Wizard allows you to create and manage output reports and output report schedules.

The Windows Client Table View dialog toolbar provides the following options:




The Windows Client Table View dialog toolbar icons can vary depending on the object being displayed. The following are just a couple of the additional icons that may appear depending on the object being displayed:

**View Info Area Icon ( )**

Displays an information area (Info Area) window that contains information unique to the object, or other information related to the entire object.

**Note:** To see an explanation of the information displayed in the information area window, open the *Help About Object* online help system from the object's toolbar.

**Input List Icon ( )**

Allows you to specify the input that creates the object. The type of input can vary from object to object. In some cases, such as when working with CA Disk archive and backup data, the Input List provides the names of one or more data sets from which the object data is extracted; that is, the CA Disk FILES Data Sets. In the case of the BCS Data Set Entries object (which lists catalog entries), the Input List is a data set name or data set name pattern to be found in the system catalogs. For other objects, the Input List is an input command to the specific product that produces the object.

In most cases, each Input List can be configured to provide system defaults. The Input List dialog allows you to override the default values. Click the Help button in the Input List dialog to find out how to use the dialog.

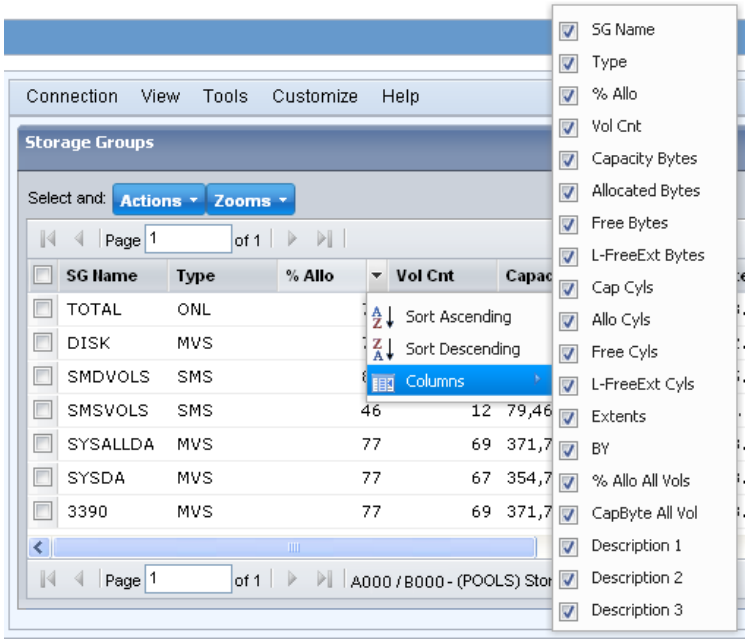
When the Input List consists of data set names, and GDGs are appropriate, either relative or absolute names may be entered. You may also specify System variables and System Symbols within the Input List, and their active values will be substituted.

**Note:** Because an Input List is not executed in any specific object context, you cannot use Object Related variables for substitution.

**Note:** For more information about the Table View dialog toolbar options, see the *CA Vantage Windows Client Guide* and the *Help About Window* online help system.

## Additional Table View Options

In addition to the Web Client menu and toolbar options, you can click the down arrow next to a column heading and sort the object table by that column in ascending or descending order. You can also click the down arrow next to a column heading and specify which columns you want to display or hide. The following is an example of the Web Client's Object Column Headings Options menu, where the down-arrow next to the % Alloc column heading is selected:




**Note:** The Web Client Customize View Wizard also provides sort and column display or hide options.

In addition to the Windows Client Table View menu and toolbar options you can also perform some quick appearance changes to the Table View as follows:

- Quick Find in Column
- Quick Sort on Columns
- Quick Color Code a Column
- Move the Freeze Column Line
- Return a Table View to Factory Settings

How to perform these changes is explained in the following procedures.

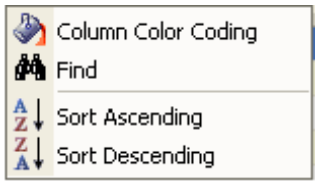
**Note:** The following Windows Client options and more options for customizing a view are available in the View and Output Definition feature. For more information, see the section Customized Reports (see page 41).

**To Quick Find in Column**

Instead of scrolling down to a row you can quickly find a particular item. To do this you can use the Quick Find in Column option by following these steps:

1. Right click the column heading which contains the item you want to find.

   The Column Options Menu is displayed as shown in the following sample:

2. Click the Find option in the Column Options Menu.

   The Find dialog is displayed.

3. In the Find What field type in the item you want to find. You can type in part of the item, for example if you wanted to find ABC123 then you could type in ABC, ABC1, and so on.

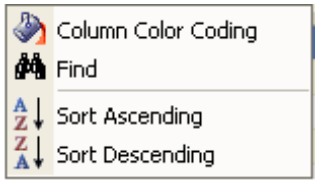
4. Click Find Next.

   The Table View of the object is updated and the first item containing your find criteria is displayed. If the criterion is not found in the column then you will receive a message advising it is not found.

**To Quick Sort on Columns**

You can perform quick sorts in the Table View by clicking a column heading title cell and the table will sort by that column in descending order. Click the column heading title cell again and the table will sort by that column in ascending order.

You can also right click a column heading and the Column Options Menu is displayed where you can select the Sort Ascending or Sort Descending options. The following is a sample of the Column Options Menu:




**Note:** After you have created a Table View column sort in this manner you may want to remove it; to remove a Table View column sort, click the Sort icon and use the Exclude a Field option or the Exclude all Fields option. For more information, see the section Sort Option (see page 32).

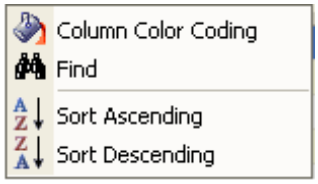
**To Quick Color Code a Column**

You can highlight certain values in columns by color coding them when specific criteria is met. You have two options for color coding, you can use the Quick Color Code a Column option or you can use the View and Output Destination – Fields option (the View and Output Destination – Fields option, is described in the section Color Code Option (see page 36)).

To use the Quick Color Code a Column option, perform the following steps:

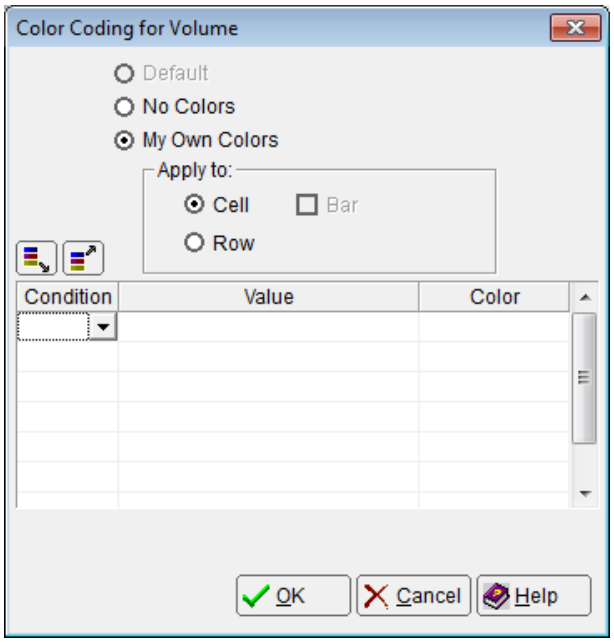
1. Right click the column heading of the column you want to color code.

   The Column Options Menu is displayed as shown in the following sample:



2. Click the Column Color Coding option in the Column Options Menu.

   The Column Color Code dialog is displayed. The following is a sample of the Column Color Code dialog displayed for the Volumes column in the Storage Group Volumes object:

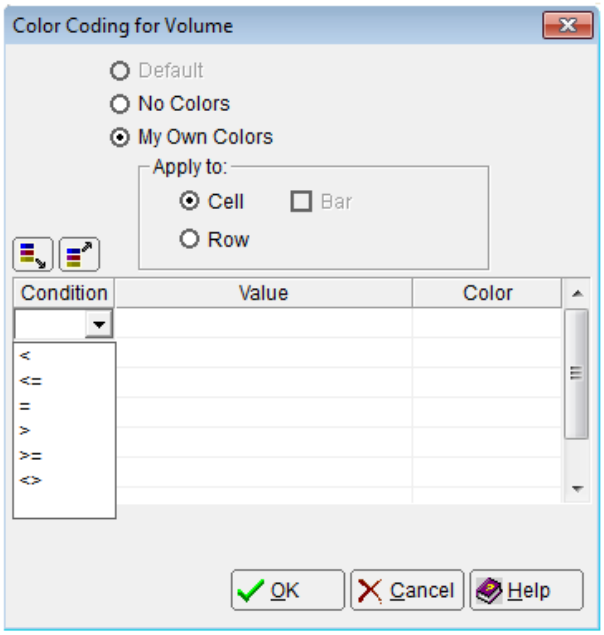



3. Click in the first empty Condition cell.

   A down arrow appears on the right side of the cell.

4. Click the down arrow on the right side of the cell.

   The Condition options are displayed as shown in the following sample:




5. Select the condition you want.

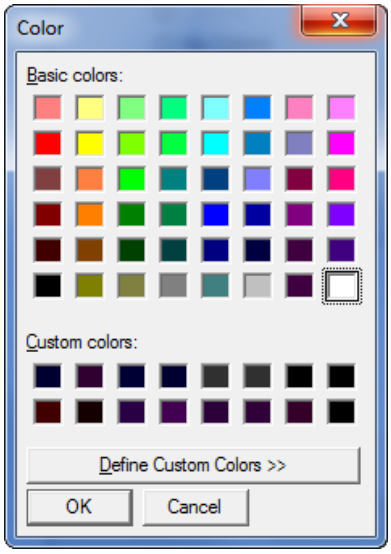
   The condition selected is displayed in the cell.

6. Click in the Value cell of the same row you selected the condition. Type in the value that you want the condition applied to.

   The value is displayed in the cell.

7. Click the Color cell of the same row you selected the condition and typed in a value.

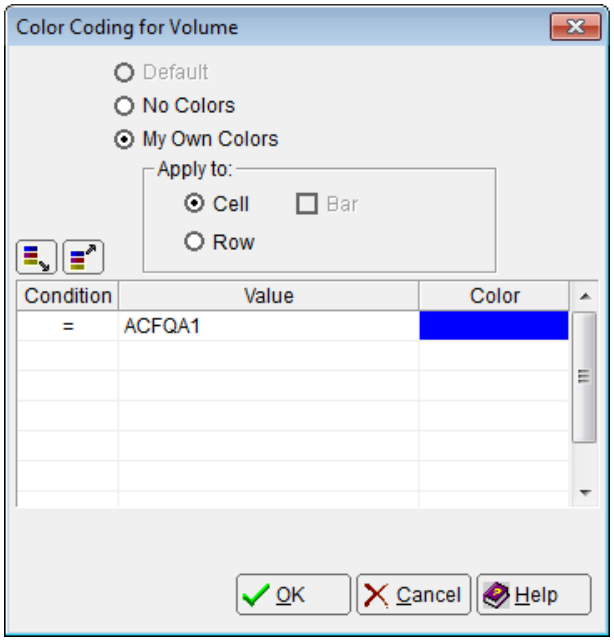
   The Color dialog is displayed as shown in the following sample:




8. In the Color dialog select the color you want to appear as the background for the items that meet your criteria and click OK.

   The Column Color Code dialog is displayed showing the condition, value and color you have specified.

   The following is an example of the Column Color Code dialog where the condition is '=', the value is 'ACFQA1' and the color is blue for the Volumes column in the Storage Group Volumes object:



9. Click OK.

   The Table View of the object is displayed with your color code settings.

10. In the Table View menu select File and then click Save, to save your settings.

If you save the Table View with the column color code setting then every time you open the object the color codes are applied. To remove the column color coding; display the object, right click the column, select No Colors, and then click OK in the Column Color Code dialog.

**Observe the following:**

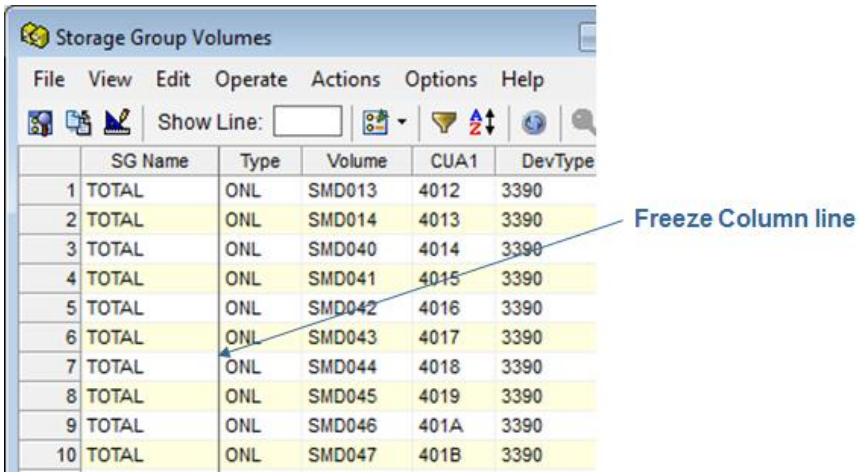
- You can apply the color coding to the cells in the column selected or you can apply the color coding to the whole row by selecting the *Apply to Row* option.
- You can apply predefined color code values by selecting the *Use predefined colors* button (  ).
- You can save the column color codes you have created so that you can use them later by selecting the *Store these colors as predefined* button (  ).
- You can have multiple conditions, values, and colors to the same column. However, the Windows Client checks the conditions sequentially until the first match occurs and it uses ANSII character sort order for the comparison (for example: 0-9, A-Z, and a-z). If one value meets two or more conditions then the first condition is applied.

  For example: if you color code two conditions in the dialog such that '= AAAA1 Blue' is listed first, and then '> AAAA0 Red' is listed second in the dialog then the Windows Client will apply the '= AAAA1 Blue' condition to all AAAA1 items, then it will apply the second condition, '> AAAA0 Red', to any items that meets the second condition but where the first condition has not been applied. If the conditions are reversed in the dialog so that '> AAAA0 Red' is first and '= AAAA1 Blue' is listed second in the dialog, then the second condition, '=AAAA1 Blue', would be ignored because items with values AAAA1 have already met the first condition and the red color coding is already applied to them.

- There are no "and" or "or" condition statements available for color coding multiple conditions, values, and colors to the same column. There are simply the 'less than', 'less than or equal to', 'equal to', 'greater than', 'greater than' or equal to', 'less than or greater than' and 'Range' (for numerical fields only) conditions available for comparison to the values you specify.

**To Move the Freeze Column Line**

You can freeze columns so that when you scroll to the right in a Table View, certain columns stay in the view. The black vertical line separating columns is the Freeze Column Line. The following illustration shows the factory default Freeze Column Line for the Storage Group Volumes object:



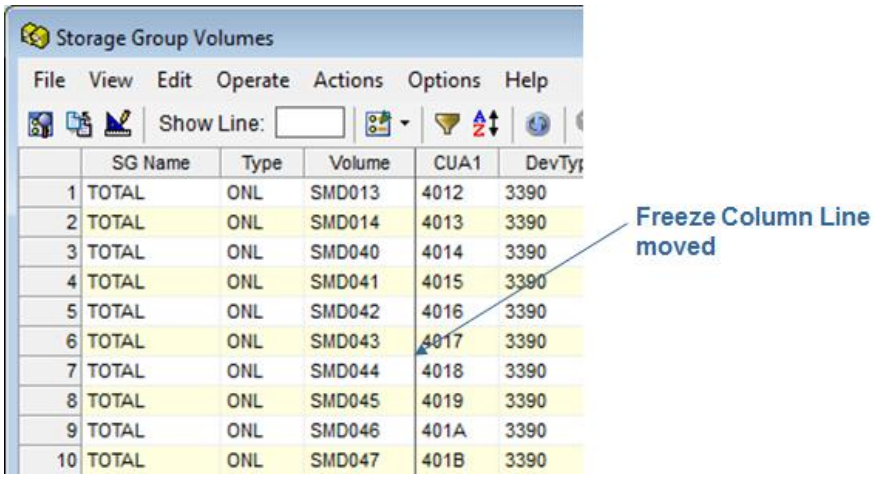
To include the Type and Volumes columns as Freeze Columns perform the following steps:

**Note:** You can similarly include as many columns as you want as Freeze columns in any Table View of an object.

1. Click on the vertical line between the SG Name and the Type columns and drag-and-drop it to the vertical line between the Volume and the CUA1 columns.

   **Note:** You must click and drag the line anywhere below the column heading portion of the line, that is, it will not work if you click and drag the section of the line between the column headings.

   The Freeze Column Line is now displayed between the Volume and the CUA1 columns as shown in the following sample:




   When you now scroll to the right in the Storage Group Volumes object the SG Name, Type and Volume columns will always be displayed in the left columns of the view.

2. In the object view menu click File and then Save, to save your settings.

   If you save your settings then every time you open the object the Freeze Columns line will be where you saved it. Alternatively you can just close the Table View without saving your Freeze Column Line change and the next time you open the Table View for the object the Freeze Column Line will be where it was with the factory setting.

**To Return a Table View to Factory Settings**

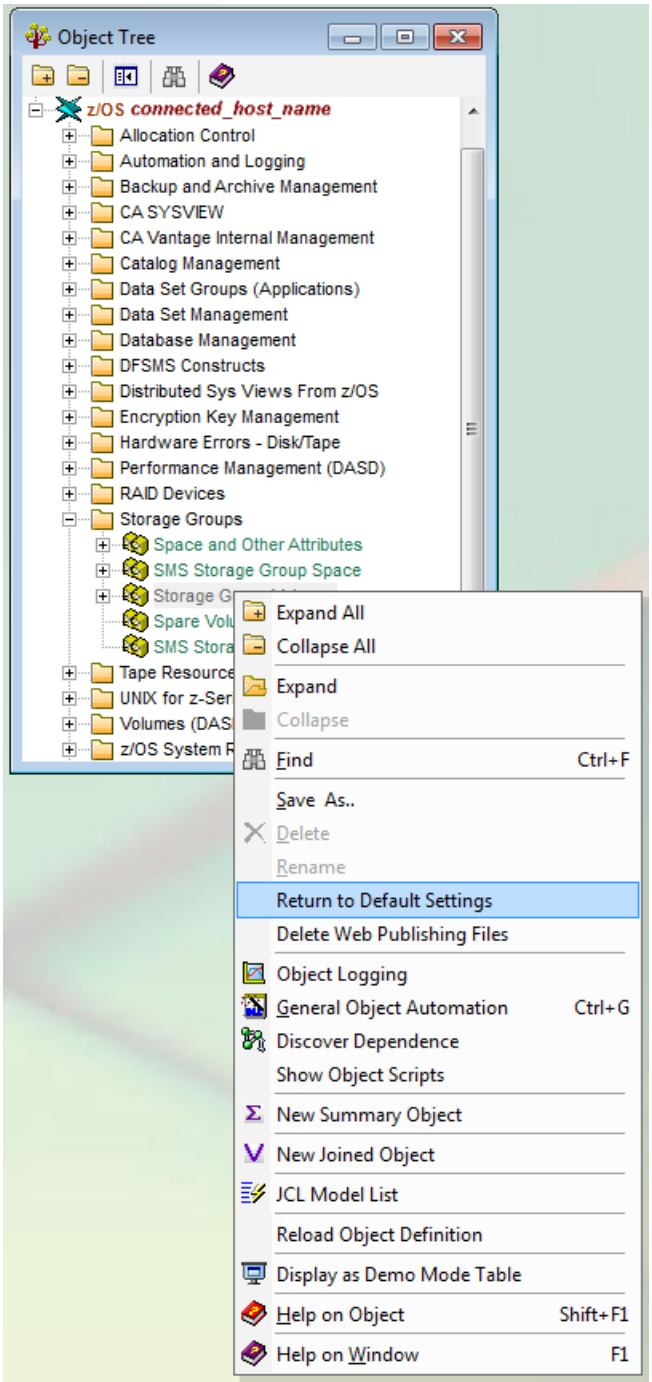
Before you return an object view to factory settings note the following:

- By following this procedure you will erase all your settings in the view of the object, for example the Sort settings, Column Color Coding settings, Freeze Columns settings, Filter settings and so on.
- If you only want to remove a particular setting but not all your customized settings then open the tool option for the setting you want to remove and remove it. The following are a few examples of how to remove particular settings:
  - To remove column color code settings, open the Color Coding dialog for the column colors you want to remove and select No Colors.
  - To remove a filter, open the Filter dialog and click the Clear icon (  ) then Save. For more information, see the section Filter Option.
  - To remove your Freeze Columns settings, move the Freeze Columns line to the dividing line between the first and second column.
  - To remove column sorts, click the Sort icon (  ) and use the Exclude a Field option or the Exclude all Fields option. For more information, see the section Sort Option.

To return an object view to factory settings, perform the following steps:

1. Right click the object in the Object Tree.

   The Object Options Menu is displayed. The following shows a sample of the Object Options Menu:



2. Click Return to Default Settings.

   A confirmation dialog is displayed.

3. Click Yes.

   All the changes to the object that you have previously saved will now be replaced with factory default settings. You will see this change the next time you open the object.

## Graph Views

The Graph View feature displays a selected set of object data in a graph.

**Note:** For Web Client users; the Customize View Wizard in the Web Client provides Charting options. These options allow you to create charts (graphs) of object data. For more information, see the *CA Vantage Web Client Guide*.

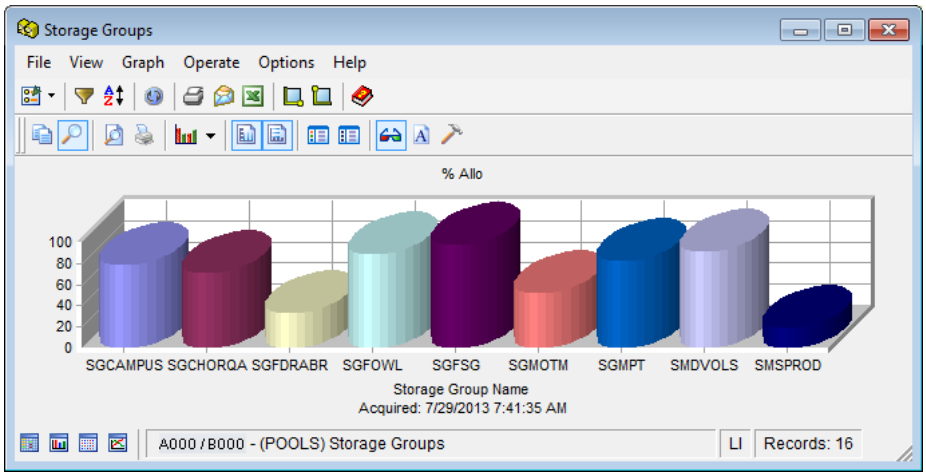
The Windows Client offers a large variation of graph types to present your data in a variety of formats. Some of the available graph types are:

- Line
- Point
- Area-curve
- Bar
- Pie
- Doughnut
- Pyramid
- Cube

You can specify the graph type and its format to obtain the kind of display you prefer. You can preview the general look of a graph while defining its various features.

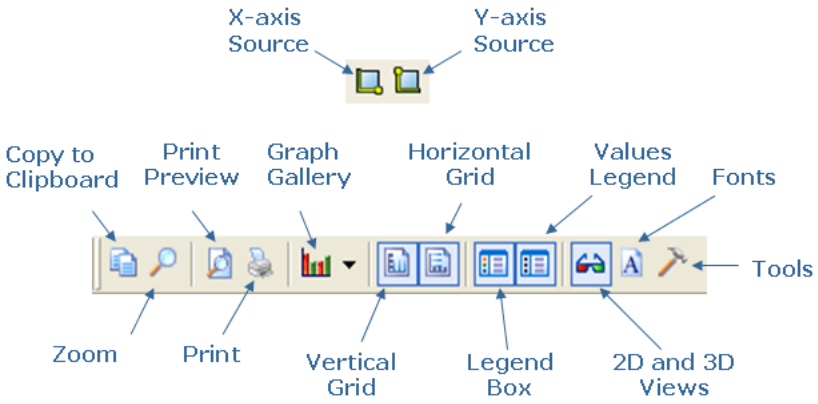
**Note:** To immediately view certain changes, you must click the Refresh icon (  ).

The following is a sample of the Windows Client Graph View of the Storage Groups object:




## Graph View Dialog Toolbar Options

The Windows Client Graph View dialog toolbar provides the following options for working with graphs:




**Note:** For more information about the Graph View dialog toolbar options, see the *CA Vantage Windows Client Guide* and the *Help About Window* online help system.

## Additional Graph View Options

In addition to the Windows Client Graph View menu and toolbar options you can also perform some quick appearance changes to the Graph View as follows:

- Increase or Decrease Number of Items Displayed
- Quick Gallery Option (to change graph type)
- Quick Color Option (to change graph color)

- Quick Multiple Colors Option

How to perform these changes is explained in the following procedures.

**Note:** The following options and more options for customizing a view are available in the Windows Client View and Output Definition option. For more information, see the section Customized Reports (see page 41).

**Increase or Decrease Number of Items Displayed**

When you switch the object view from Table View to Graph View by clicking the Graph icon in the bottom left corner of the view, the Graph View will display the same amount of items that were displayed in the Table View. For example, if the Table View displayed 8 rows of X records found then the Graph View will display only those 8 items. If you want the Graph View to display more items then switch back to the Table View and expand the window to display more rows. Then when you switch back to the Graph View it will display the same amount of items. For example, if the Table View displayed 8 rows and you expand the Table View to display 10 rows then when you switch to the Graph View it will display 10 items.

You can also use the Sort Option and the Filter Option in order to specify the order of the items and reduce the amount of items you want to display in the graph, prior to switching to the Graph View.

**Note:** When you print a Graph View, all records (not only the ones displayed in Graph View on your screen) will be included in the printout unless you specify a range in the print option.

**Quick Gallery Option to Change Graph Type**

When a Graph View is displayed you can use the Quick Gallery option to change the graph type. (This option is the same as the Gallery icon option found on the Graph View toolbar, this is another method for initializing the same option.)

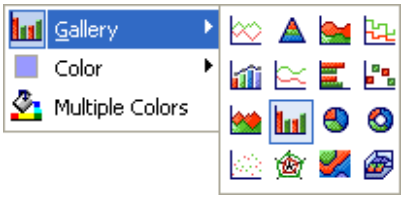
**To use the Quick Graph Type Change option**

1. Right click in the graph of the Graph View.

   The Graph Options Menu is displayed as shown in the following sample:

2. Click the Gallery option and a list of graph types is displayed as shown in the following sample:

3. Click on the graph type you want to change to.

   The Graph View is updated and the new graph type selected is displayed.

**Quick Color Option to Change Graph Colors**

When you switch to the Graph View, all the bars will have the same color. To apply different colors to the bars you must first use the Quick Multiple Colors Option. Then you can right click a particular bar and specify a color for that bar. The following procedure assumes you have the object displayed in the Graph View and all the bars have the same color.

**To use the Quick Graph Color option to specify a color**

1. Right click on a particular item (for example a bar) in the graph.

   The Graph Options Menu is displayed as shown in the following sample:


2. Select the Multiple Colors option.

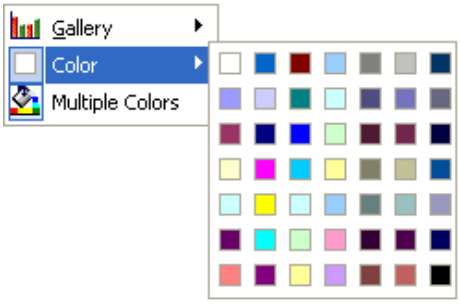
   The Graph View is displayed and the graph items are displayed by a different color.

3. Right click on the item (for example a bar) in the graph you want to specify a color for.

   The Graph Options Menu is displayed.

4. Click the Color option.

   A color chart is displayed as shown in the following sample:




5. Click on the color you want the item changed to.

   The item in the Graph View is displayed with the color selected.

### Quick Multiple Colors Option

When you switch to the Graph View, all the bars will have the same color. To apply different colors to the bars you can use the Quick Multiple Colors Option. Then you can right click a particular bar and specify a color for that bar as described in the section Quick Color Option. The following procedure assumes you have the object displayed in the Graph View and all the bars have the same color.

**To use the Multiple Colors Option**

1. Right click on any item (for example a bar) in the graph.

   The Graph Options Menu is displayed as shown in the following sample:

2. Click the Multiple Colors option.

   The Graph View is updated with each item displayed by a different color.

   **Note:** To return the Graph View so that all items use the same color, right click an item (for example a bar) in the graph and select the Multiple Colors option.

## Standard View Options

In both the Windows Client and the Web Client, each standard view of object data provides options you can use to manipulate object information so it is presented the way you like. Some of the more common Windows Client options are described in the following sections.

**Note:** For more information about these options in the Web Client, see the *CA Vantage Web Client Guide*.

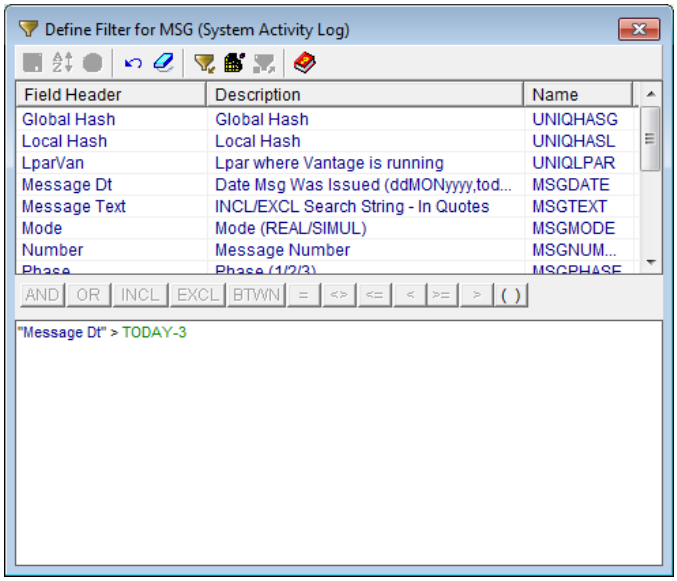
## Filter Option

The Filter feature narrows the amount of object information (the number of rows) displayed in the table. The Windows Client lists the object fields in the Filter dialog in alphabetical order by field name. The Filter dialog guides you in the process of defining the filter expression by enabling and disabling the appropriate fields and controls at every step.

**Note:** For Web Client users; the Customize View Wizard in the Web Client provides a similar filtering feature. For more information, see the *CA Vantage Web Client Guide*.

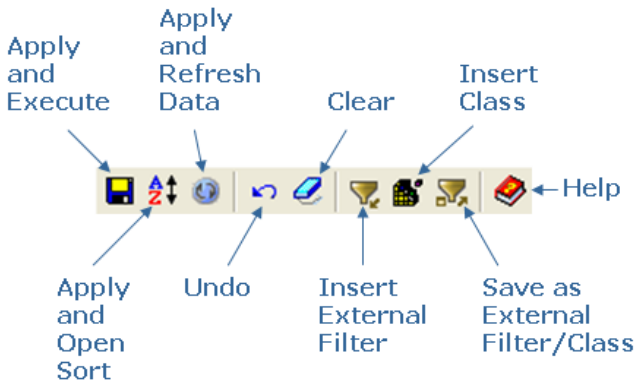
### Example: Create a Filter

The following Windows Client example shows the filter criteria that would produce a user defined view showing only the CA Vantage messages issued in the last 3 days. In the example a relative date of TODAY-3 is used instead of an absolute date. A relative date allows for reuse of the filter without you having to calculate and update the date. However you can use absolute dates (specific dates).




## Filter Dialog Toolbar Options

The Windows Client Filter dialog toolbar provides the following options:



## How Filters Work

A filter can be built from the fields of the object by combining them into Boolean expressions. You can also use expressions that contain patterns with wildcard characters.

You can refine your filter by using the AND/OR logical operators to combine several expressions. Use parentheses to group sub-expressions.

You can enter a filter expression directly into the text box at the bottom of the Define Filter dialog or use the typing aids in the dialog. It is possible to edit any expression in the text box.

Observe the following:

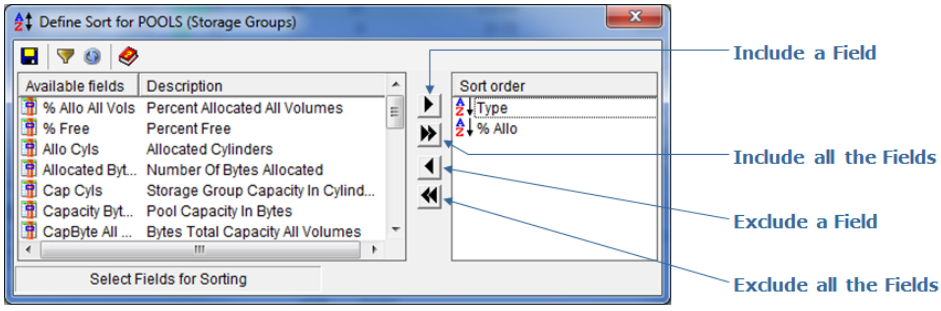
- For more information about how filters work click the Help icon in the Filter dialog.
- To immediately view the effect of your filter you must click the Apply and Refresh Data icon ( ).

## Sort Option

The Sort feature sorts the table by the values in the columns of the table. Every object attribute (or field for z/OS) in a table can serve as a sort key. You can use the Windows Client Sort Dialog to sort object data in both the Table View and the Graph View.

**Note:** The Customize View Wizard in the Web Client provides a similar sort feature. For more information, see the *CA Vantage Web Client Guide*.

The following is a sample of the Windows Client Sort dialog for the POOLS object. It points out how to include and exclude fields the object view is sorted by.




**To change the Sort order using the Windows Client Sort dialog**

1. Double-click the Sort Order icon ( ) in the Sort Order pane of the Sort dialog.

   The Ascending Sort Order icon ( ) appears.

2. Double-click the Sort Order icon again in the Sort Order pane of the Sort dialog.

   The Descending Sort Order icon ( ) appears.

**Note:** To immediately view the effect of your sort you must click the Apply and Refresh Data icon ( ).

You can sort object data by columns directly in the Table View.

**To sort the Table View by columns in the Windows Client**

1. Click the column title you want the object data to be sorted by.

   The first time the column title is clicked the table is updated and sorted in ascending order by object data in that column.

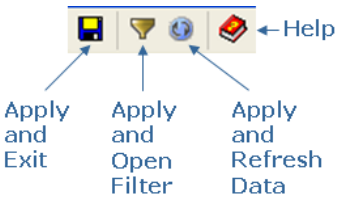
2. Click the column title again to change the sort to descending order.

   The table is updated and sorted in descending order by object data in that column.

After you have created a Table View column sort in this manner you may want to remove it; to remove a Table View column sort, click the Sort icon ( ) and use the Exclude a Field option or the Exclude all the Fields option.

## Sort Dialog Toolbar Options

The Windows Client Sort dialog toolbar provides the following options:



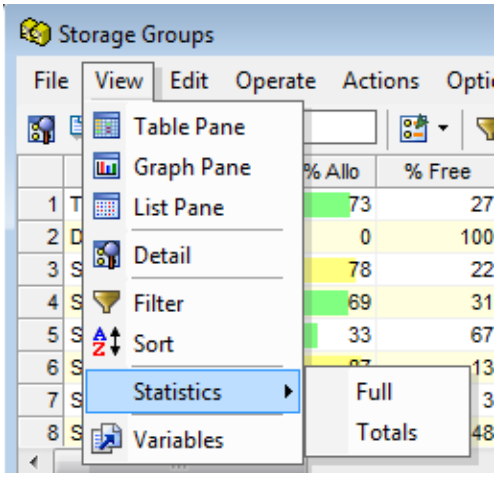

## Statistics Full and Totals

The Windows Client Statistics Full and Totals options in the View menu let you request the total of every numeric field, or combine the totals with the average, minimum, and maximum values.

**Note:** The Statistics option in the View menu of the Web Client provides a statistics and totals view of the object. For more information, see the *CA Vantage Web Client Guide*.

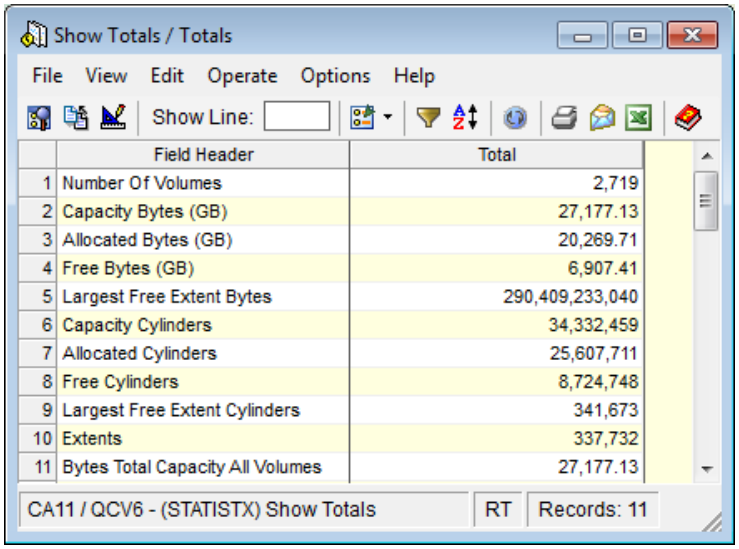
### Example: Access Statistics Full and Totals options

The following example shows where to access the Statistics Full and Totals options from the Windows Client View drop-down menu option in the Table View.



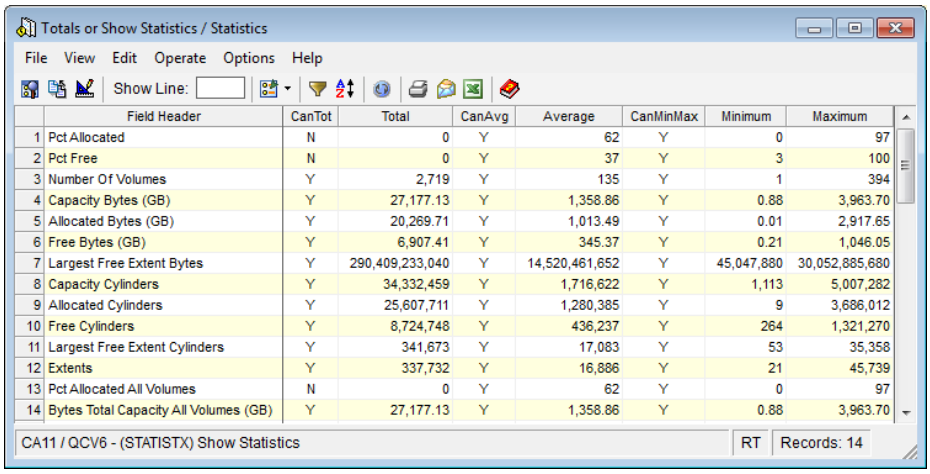

## Statistics Totals Option

The Statistics Totals option provides the sum of all numeric fields, as shown in the following sample Windows Client Statistics Totals screen capture.



## Statistics Full Option

The Statistics Full option provides totals plus the average, minimum, and maximum values for all numeric fields, as shown in the following sample Windows Client Statistics Full screen capture.




| | Field Header | CanTot | Total | CanAvg | Average | CanMinMax | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| 1 | Pct Allocated | N | 0 | Y | 62 | Y | 0 | 97 |
| 2 | Pct Free | N | 0 | Y | 37 | Y | 3 | 100 |
| 3 | Number Of Volumes | Y | 2,719 | Y | 135 | Y | 1 | 394 |
| 4 | Capacity Bytes (GB) | Y | 27,177.13 | Y | 1,358.86 | Y | 0.88 | 3,963.70 |
| 5 | Allocated Bytes (GB) | Y | 20,269.71 | Y | 1,013.49 | Y | 0.01 | 2,917.65 |
| 6 | Free Bytes (GB) | Y | 6,907.41 | Y | 345.37 | Y | 0.21 | 1,046.05 |
| 7 | Largest Free Extent Bytes | Y | 290,409,233,040 | Y | 14,520,461,652 | Y | 45,047,880 | 30,052,885,680 |
| 8 | Capacity Cylinders | Y | 34,332,459 | Y | 1,716,622 | Y | 1,113 | 5,007,282 |
| 9 | Allocated Cylinders | Y | 25,607,711 | Y | 1,280,385 | Y | 9 | 3,686,012 |
| 10 | Free Cylinders | Y | 8,724,748 | Y | 436,237 | Y | 264 | 1,321,270 |
| 11 | Largest Free Extent Cylinders | Y | 341,673 | Y | 17,083 | Y | 53 | 35,358 |
| 12 | Extents | Y | 337,732 | Y | 16,886 | Y | 21 | 45,739 |
| 13 | Pct Allocated All Volumes | N | 0 | Y | 62 | Y | 0 | 97 |
| 14 | Bytes Total Capacity All Volumes (GB) | Y | 27,177.13 | Y | 1,358.86 | Y | 0.88 | 3,963.70 |

## Scale Option

The Scale option list lets you select the scale base units for displaying numerical data. The difference between requesting K, M, G, and so on, as opposed to KB, MB, GB and so on is that those with the appended B mean multiples of 1024, while those without the B mean multiples of 1000. For example:

- nnK = nn(1000), nnM = nn(1000)(1000), and so on.
- nnKB = nn(1024), nnMB = nn(1024)(1024), and so on.

**Note:** The Customize View Wizard in the Web Client provides a similar field scaling feature. For more information, see the *CA Vantage Web Client Guide*.

**To scale a column of numeric data in the Windows Client**

1. Click the Definitions icon (  ) on the Windows Client toolbar of the object view.

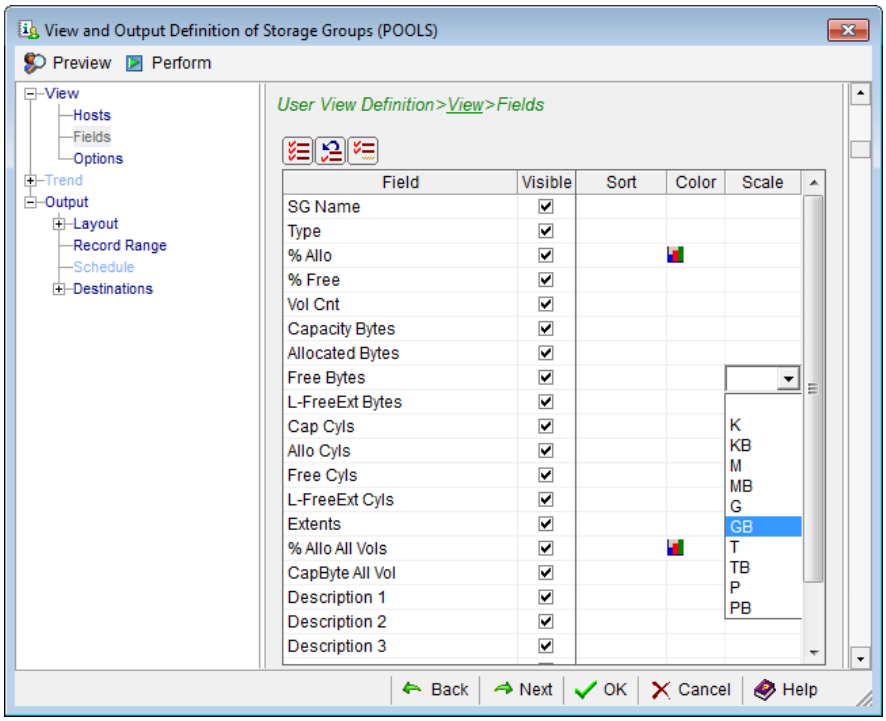
   The View and Output Definition dialog appears.

2. Click the Fields option in the left navigation pane of the View and Output Definition dialog.

   The Fields dialog appears.

3. Click the cell in the Scale column of the Field row for which you want to establish the scale for.

   A scale options list appears as show in the following sample:




4. Select the scale you want to use.

   The scale selected appears in the cell in the Scale column of the Field.

5. Click OK.

   The View and Output Definition dialog closes and the object view is updated with the scales selected. The column heading displays the scale after the heading title, for example if you selected a scale of GB for Free Bytes the column heading title will indicate the scale is GB and would look like the following sample in your object view:


## Color Code Option

The Color Code option lets you set conditions for color coding values in object Table Views.

**Note:** The Customize View Wizard in the Web Client provides a row and field coloring feature. For more information, see the *CA Vantage Web Client Guide*.

**To color code values in object views in the Windows Client**

1. Click the Definitions icon ( ) from the toolbar of the object Table View.

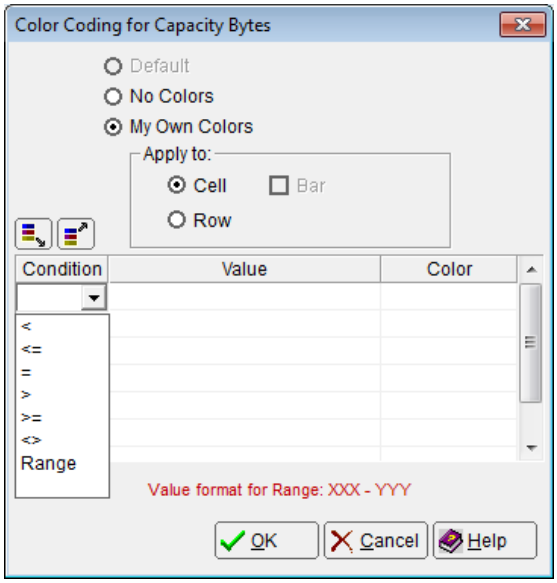
   The View and Output Definition dialog appears.

2. Click the Fields option in the left navigation pane of the View and Output Definition dialog.

   The Fields dialog appears.

3. Click in the Color cell for a field you want to assign a background color.

   The Color Coding dialog appears. The following Color Coding dialog sample shows how you can select a condition, enter a condition value, and then select a background color for the item that meets the condition.

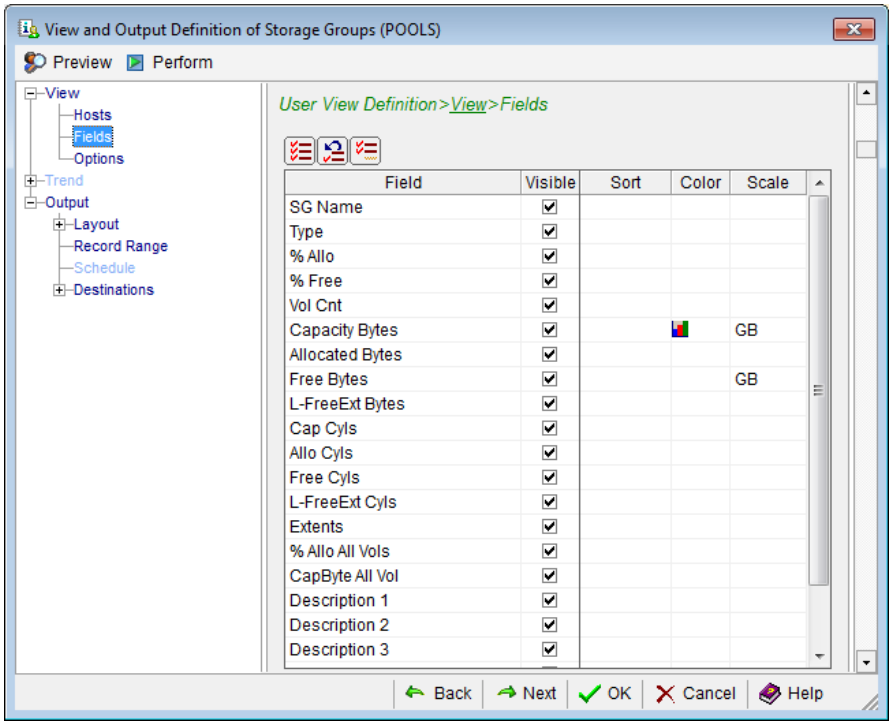



4. Complete the Color Code dialog.

   The condition, value, and color code you selected are displayed in the Color Code dialog.

5. Click OK in the Color Code dialog.

   The Color Code dialog closes and the field Color icon ( ) appears in the Color cell in the Fields dialog, as shown in the following sample.




6. Click OK.

   The View and Output Definition dialog closes. The object Table View appears with background of values that meet your conditions color coded.

## Open Zoom Option (Drill-Down Feature)

The Windows Client Open Zoom feature provides you with a list of objects that have related information. You can select an object from the Zoom list dialog to view the related information.

**Note:** The Web Client provides a Zoom feature on the Object toolbar. For more information, see the *CA Vantage Web Client Guide*.

**To zoom to related objects in the Windows Client**

1. Select a row in the object Table View.

   The selected row is highlighted.

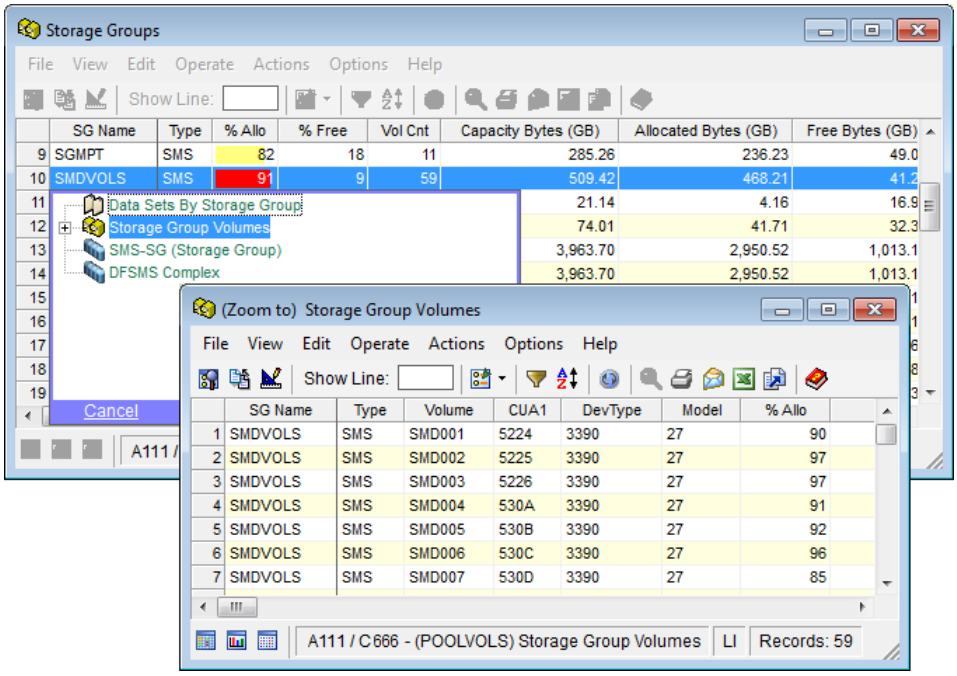
2. Click the Open Zoom icon ( ).

   The Zoom list dialog appears, listing related objects.

3. Click an object in the Zoom list.

   Object information in the object selected for that item appears.

The following sample illustrates a zoom from a particular Storage Group in the Storage Groups object to the same Storage Group in the Storage Groups Volumes object.




## New Summary Objects Option

The Windows Client Summary Designer helps you create new summary objects from any source object. You select the method for defining the summary groups and select the fields to include in the summary object. The summary object includes summary groups from a source object table, and then provides statistics about all the object rows that fall into each summary group. The statistics include counts, maximum values, minimum values, average values, and totals. These statistics are provided for each group of records and for all the records.

You can start the Windows Client Summary Designer two ways, from the object pop-up menu or from the Object view Menu Bar.

**Note:** Currently, you cannot create or manage Summary Objects using the Web Client. You can view Summary Objects using the Web Client.

**To start the Windows Client Summary Designer from the object pop-up menu**

1. Right-click on the object in the Object Tree view.

   The Object pop-up menu appears.

2. Select New Summary Object in the Object pop-up menu.

   The Summary Designer appears.

**To start the Summary Designer from the object view Menu Bar**

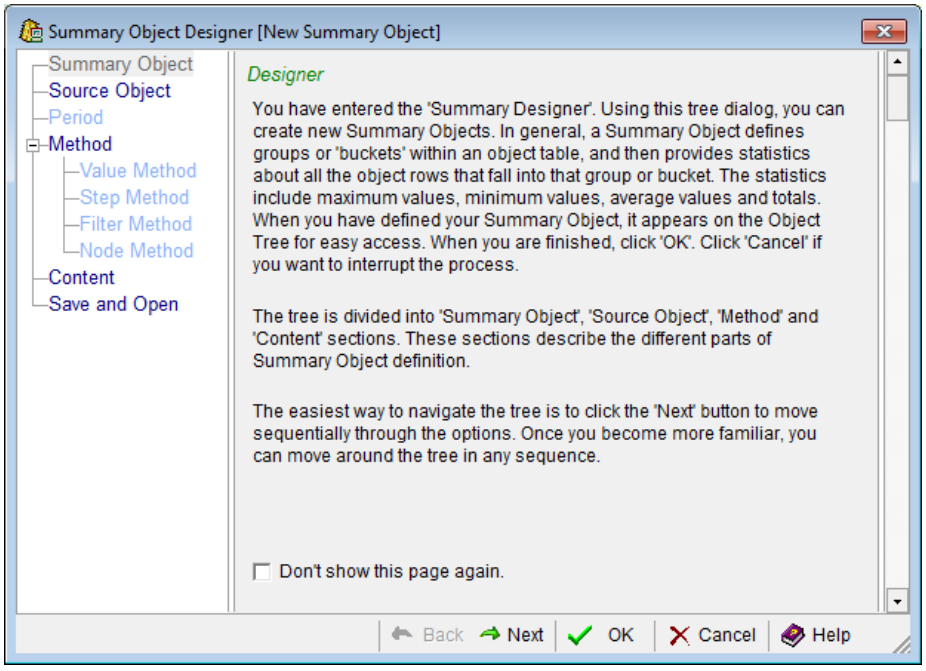
1. Click the object in the Object Tree view.

   The object view appears.

2. Select View, then New Summary Object from the object view Menu Bar.

   The Summary Designer appears.

The following is a sample of the Summary Designer.




**Note:** For more information about how to use the Summary Designer to create a new Summary Object click the Help icon in the Summary Designer dialog, or see the chapter "Working with Generalized Summary Objects" in the *CA Vantage User Guide*.

## Customized Reports

You can customize reports with the appearance and information you want by using the Windows Client Output Report wizard and the View and Output Definition wizard.

**Note:** The Customize Reports Wizard in the Web Client provides an output report feature you can use to create and manage user-view object data output reports and schedules for output reports. For more information, see the *CA Vantage Web Client Guide*.

**Windows Client Output Report wizard**

This wizard allows you to define:

- The number of records (record range) of the report.
- The report format (print, web publishing, email, PDF, HTML, XML, TXT, Excel, FTP Server, and so on).
- The destination of the report (the printer, the directory, web server, email address, FTP server ID, and so on).

**Windows Client View and Output Definition wizard**

This wizard allows you to define:

- The z/OS hosts from which data is to be retrieved.
- The fields (columns) to be included in the report.
- The order of the fields (columns) displayed in the report.
- The sort, color, and scale of the data in the report.
- The layout design, contents, and record range of the report. This includes the grouping of the fields (columns) displayed in the report (using the Grouping facility in this feature).
- The report format (print, web publishing, email, PDF, HTML, XML, TXT, Excel, FTP Server, and so on).
- The destination of the report (the printer, the directory, web server, email address, FTP server ID, and so on).

**To start the Output Report wizard in the Windows Client**

1. Click the object in the Object Tree view to open the object view.
2. Click File, Output Report. Or click one of the following icons from the object window toolbar:
   - Print Report
   - Mail Report
   - Export data into Excel

   The Output Report wizard opens.

**To start the View and Output Definition wizard in the Windows Client**

1. Click the object in the Object Tree view.

   The object view opens.

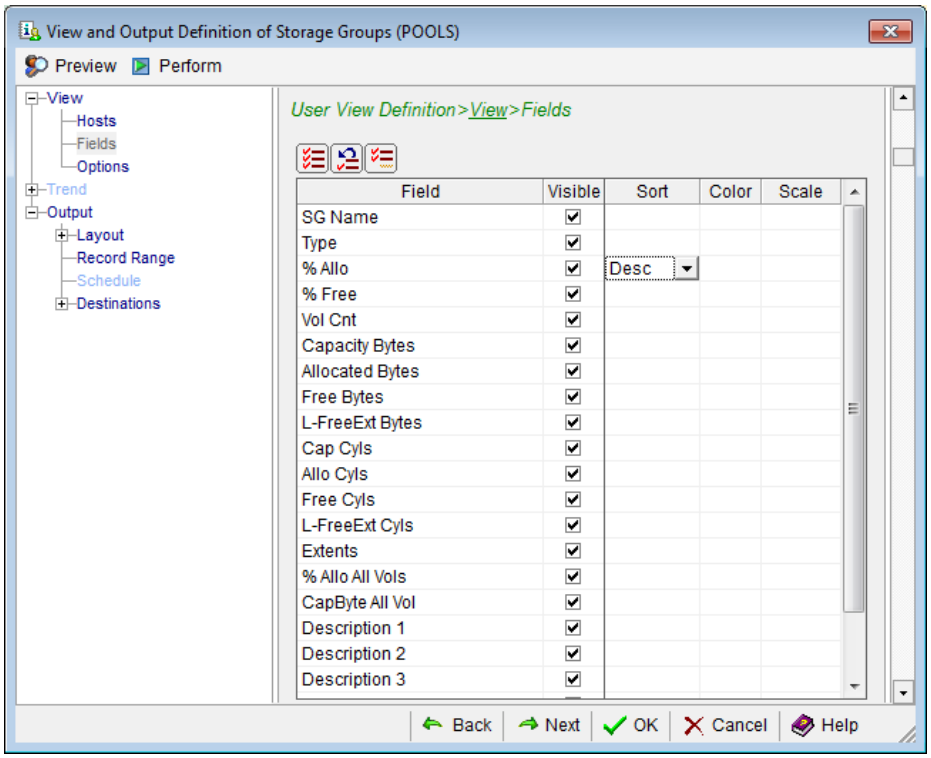
2. Click the Definitions icon ( ) from the toolbar of the object view.

   The View and Output Definition wizard opens.

### Example: Define fields to be displayed in a Storage Groups report

You can create a report based on the Storage Groups object that contains information on the SG Name, Type, % Allo, Vol Cnt, Capacity Bytes, Allocated Bytes and Free Bytes. You can then sort the report by descending % Allo.

The following example shows how you would define this report in the Windows Client View and Output Definition>View>Fields dialog.




**Note:** For more information about the View and Output Definition dialog, click the Help icon in the View and Output Definition dialog.

## Multiple Output Formats

You can use the Windows Client Output Reports wizard to define output formats, number of records, and destinations of your object view as it is currently displayed. You also have the option of using the View and Output Definition wizard to customize reports with the appearance and information you want.

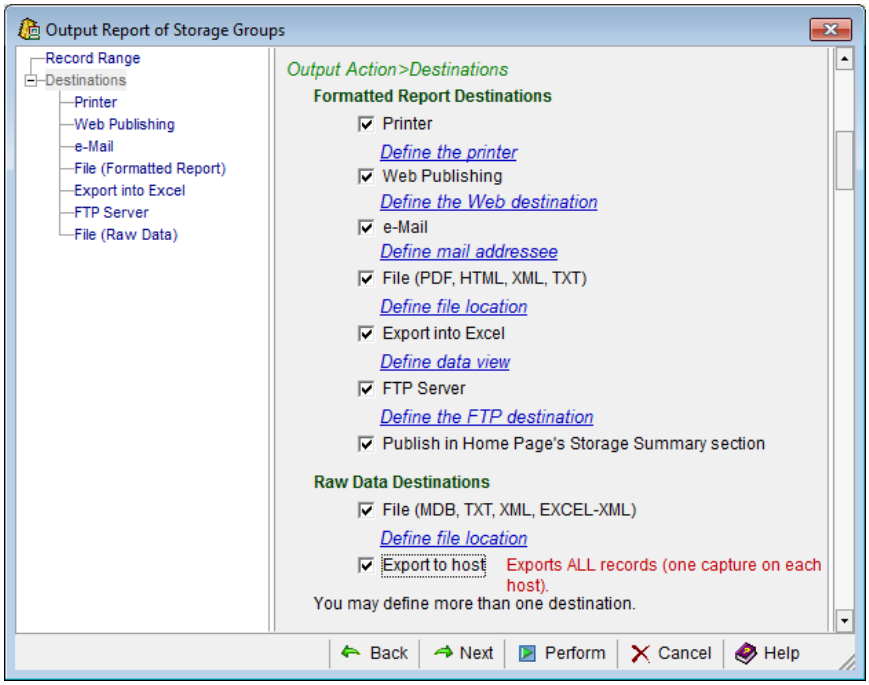
**Note:** The Customize Reports Wizard in the Web Client provides an output report feature where you can define output formats, schedules, and destinations of object user-view data. For more information, see the *CA Vantage Web Client Guide*.

When using the Output Reports wizard in the Windows Client, the output includes all the information from your object view as it appears in your object view at the time you generate the report. Before you generate the report, you can use other object view options (such as filter, sort, color code, and so on) to design how the information appears in your object view and subsequently how the report appears. The number of records in the report depends on the settings in the Record Range page of the wizard.

**To start the Output Report wizard in the Windows Client**

1. Click the object in the Object Tree view to open the object.
2. Select File, then Output Report from the object View menu to open the Output Report wizard. If you just want to print a report, mail a report as an attachment, or export the object data to Excel, then simply click the corresponding report output icon in the object window toolbar.

The following is a sample of the Windows Client Destinations page of the Output Report wizard for the Storage Group object.




Each output destination gives you additional options as shown in the following example procedure for creating a Formatted File.

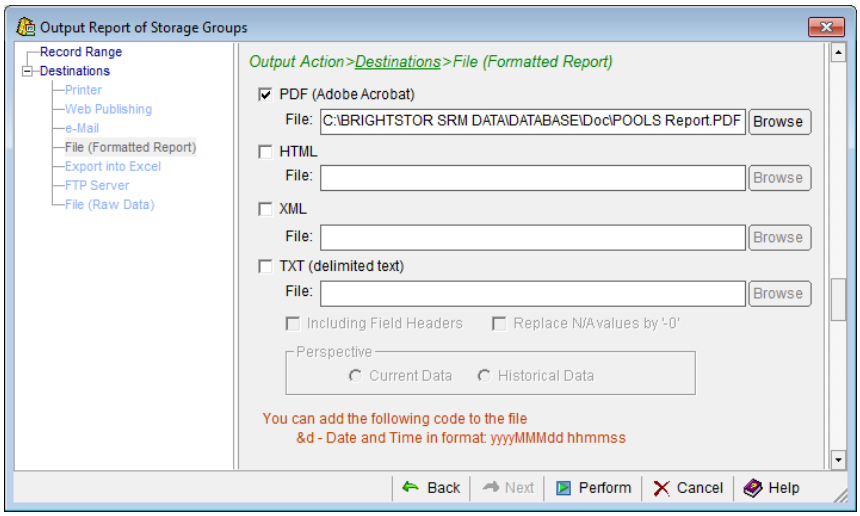
**To produce a Formatted File using the Output Report wizard**

1. Click the box next to the File (PDF, HTML, XML, TXT) option in the Destinations page of the Output Report wizard.

   A check mark appears in the box next to the File (PDF, HTML, XML, TXT) option and the Define file location link is highlighted.

2. Click the Define file location link.

   The File (Formatted Report Destinations) Destinations page opens with PDF (Adobe Acrobat) format selected, as shown in the following sample:




3. Click the box next to the formats of the report you want to create. For example, select the box next to HTML option if you do not want to create a HTML file.

   The File: field is populated with a default location dependent on the formats selected.

4. Click the Browse button next to the File: field if you want to change where the report is to be filed.

   The File: field is populated with the new file location.

5. Click Perform.

   The File (Formatted Report Destinations) page closes, and the file is created and filed in the location indicated.

**Note:** For more information about the Output Report wizard, click the Help icon in the Output Reports wizard.

## Print Report Option

You can quickly print an object view using the Windows Client Print Report icon ( ) from the toolbar of the object view.

**Note:** The Customize Reports Wizard in the Web Client provides a output report feature with output report options. You can then print the output report as you would any report. For more information, see the *CA Vantage Web Client Guide*.

When using the Windows Client Output Report wizard, the output includes all the information from your object view as it appears in your object view at the time you generate the report. Before you generate the report, you can use other object view options (such as filter, sort, color code, and so on) to design how the information appears in your object view and subsequently how the report appears. The number of records in the report depends on the settings in the Record Range page of the Output Report wizard. You also have the option of using the View and Output Definition wizard to customize reports with the appearance and information you want.

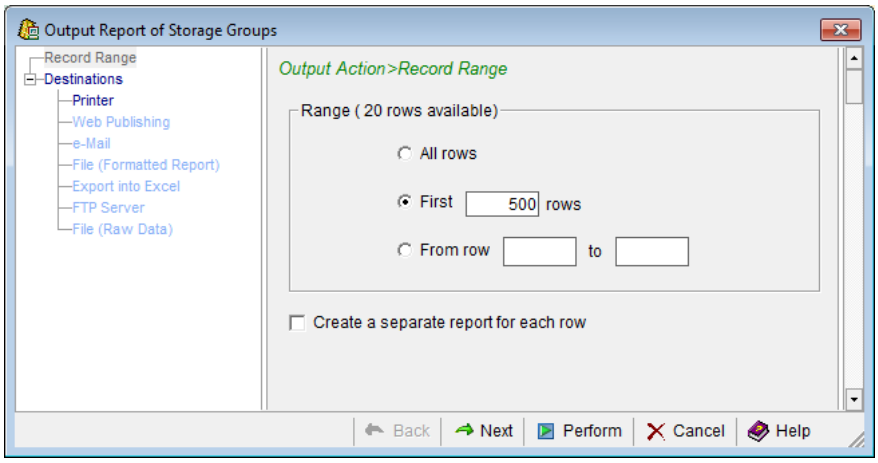
**To quickly print an object view using the Print Report icon in the Windows Client**

1. Click the object in the Object Tree view.

   The object view appears.

2. Click the Print Report icon ( ) from the toolbar of the object view.

   The Record Range page of the Output Report wizard opens, as shown in the following sample:




3. Indicate how many rows of information you want printed.

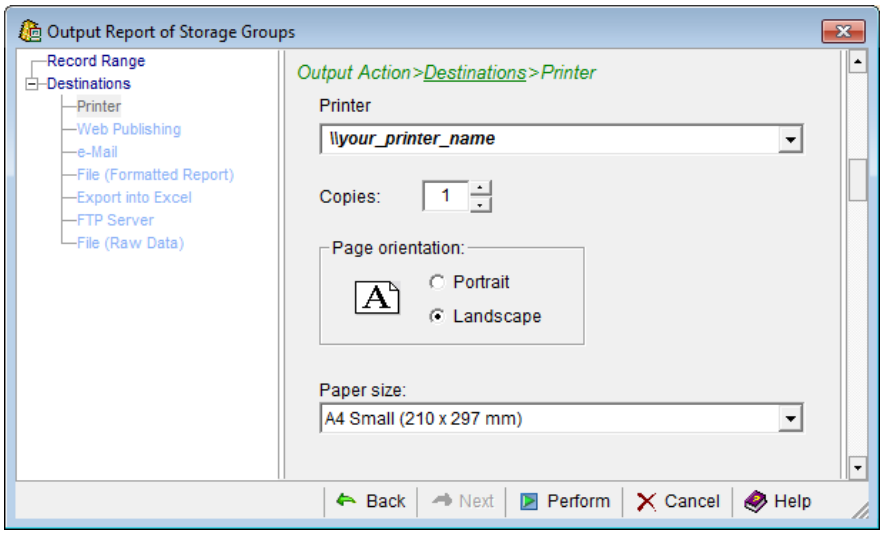
4. If you have defined a default printer in your Windows operating system and you want the print file sent to that printer click the Perform button.

   The Record Range page closes and the print file is sent to your default printer. You do not need to perform any more of the following steps.

5. If you want to indicate the printer you want the report sent to click the Next button.

   The Destinations page opens.

6. Click the *Define the printer* link to open the Printer page, as shown in the following sample:




7. Click the down arrow at the end of the Printer field and select the printer you want the report sent to.

   **Note:** The Printer drop-down list includes all printers you have defined in your Windows operating system printer setup.

   You can also use the Printer page to specify number of copies, page orientation, and paper size.

8. Click Perform.

   The Printer page closes and the print file is sent to the printer.

**Note:** For more information about the Output Report wizard, click the Help icon in the wizard.

## Mail Report Option

You can email an object view report in PDF, HTML or Excel format using the Windows Client Mail Report icon (  ) from the toolbar of the object view.

**Note:** The Customize Reports Wizard in the Web Client provides an email output report option. For more information, see the *CA Vantage Web Client Guide*.

When using the Windows Client Output Report wizard to email a report, the output includes all the information from your object view as it appears in your object view at the time you generate the report. Before you generate the report, you can use other object view options (such as filter, sort, color code, and so on) to design how the information appears in your object view and subsequently how the report appears. The number of records in the report depends on the Record Range settings. You also have the option of using the View and Output Definition feature to customize reports with the appearance and information you want.

**To quickly mail an object view using the Mail option in the Windows Client**

1. Click the object in the Object Tree view.

   The object view appears.

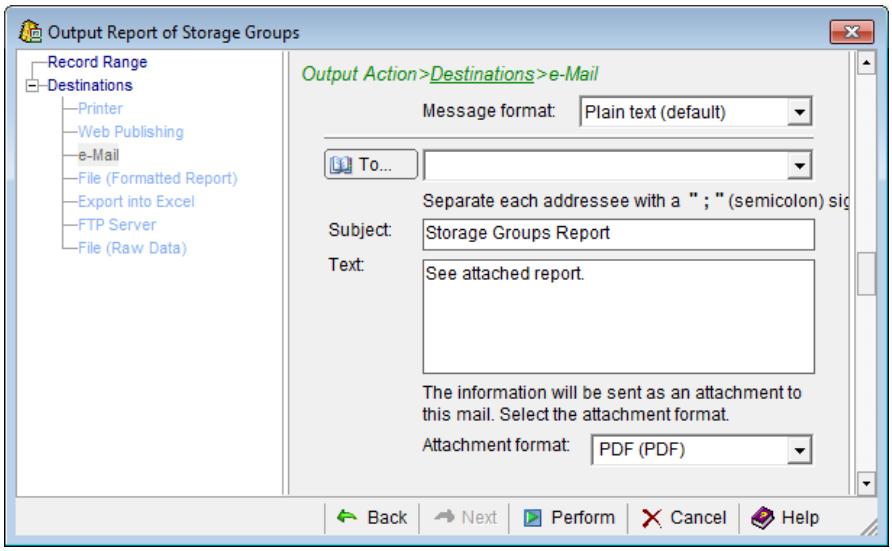
2. Click the Mail Report icon (  ) from the toolbar of the object view.

   The Record Range page of the Output Report wizard opens.

3. Indicate how many rows of information you want included in the attachment report.

4. Click Next to open the e-Mail page. It opens with the box next to e-Mail checked and the Define mail addressee link highlighted.

5. Click Next to open the Destinations e-Mail page, as shown in the following sample:




**Note:** If you have defined a Mail to Address in the (global) Windows Client Options feature then that defined email address is displayed in the e-Mail Destination page.

6. Provide the email address, subject, body text to be included in the email, and file format of the attachment object view report, then click Perform.

   The e-Mail Destination page closes. An email is created and sent with the object view report attached.

**Note:** For more information about the Output Report dialogs, click the Help icon in the Output Reports wizard.

## Other Standard Features

In addition to object views and related view options there are many additional standard features provided with both the Windows Client and the Web Client. These additional features can be found on the main window Menu Bar or Toolbar.

**Windows Client**

Windows Client additional features are explained in more detail in the *CA Vantage Windows Client Guide* and the Windows Client *Help About Window* online help system.

**Web Client**

The Web Client also provides a Scheduler feature. End-users can create output report schedules using the Customize Reports wizard. Schedules and scheduled items can be managed using the Schedule Status feature found in the Tools menu. The Web Client Scheduler currently does not provide a JCL Management feature. The Web Client Scheduler feature is explained in more detail in the *CA Vantage Web Client Guide* and the Web Client *Navigation* online help system.

The following sections give a short explanation to the Windows Client Scheduler and JCL Management features.

## Scheduler

Both the Windows Client and the Web Client have Schedulers. The Schedulers provide a consistent set of scheduling services for all output activities within the user-interfaces. You can schedule events by month, week, day, hour, and minute.

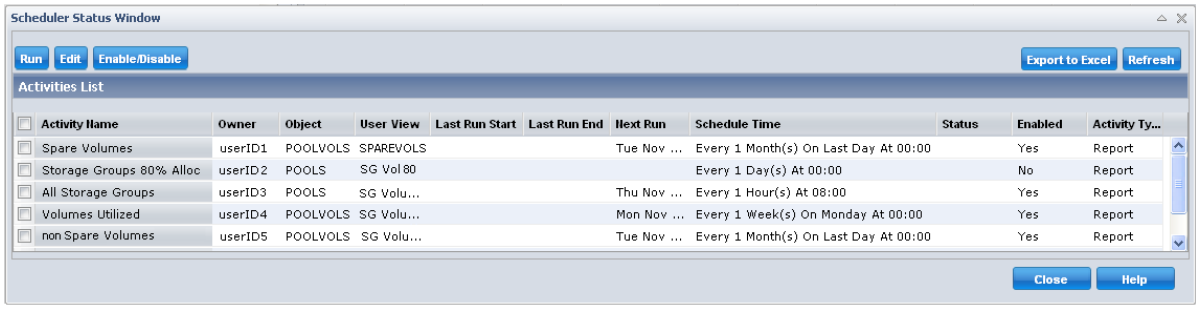
For example, suppose you wanted to be kept up to date on the scratch status of volumes by displaying a daily report on your web site. To do this, you could schedule a report based on the Volumes object to run every morning at 9:00 AM and set the Destination of the report to Web Publishing in the Windows Client, or Publish to Web in the Web Client. With this setup, the user-interface automatically runs a report on current volume activity every morning and publish the web report on your web server.

**Note:** For more information about Web Publishing using the Windows Client, see the *CA Vantage Windows Client Guide*. For more information about publishing reports to a web server using the Web Client, see the *CA Vantage Web Client Guide*.

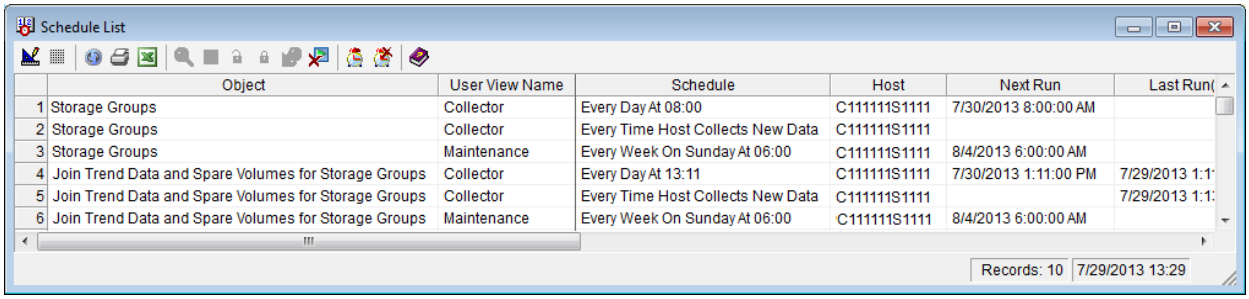
Both the Windows Client and the Web Client have Start Scheduler and Stop Scheduler options found under their Tools options. And the Windows Client has the Schedule List option and the Web Client has a Schedule Status option found under their Tools options which you can use to manage the different user-interface's scheduled items.

The Windows Client also has the Start Scheduler icon and the Schedule List icon in the Windows Client main menu Toolbar.

The following is an example of the Web Client Scheduler Status Window displayed when you select the Schedule Status option in the Tools menu:



The following is a sample of the Windows Client Schedule List window that is displayed when you select the Schedule List icon in the main toolbar, or the Schedule List menu item from the Tools menu:




## Schedule List Dialog Toolbar Options

The Web Client Scheduler Status Window provides the following options:

**Run**

Runs the selected scheduled activities immediately.

**Edit**

Modifies a Schedule.

**Enable/Disable**

Enables or disables the selected schedules.

**Export to Excel**

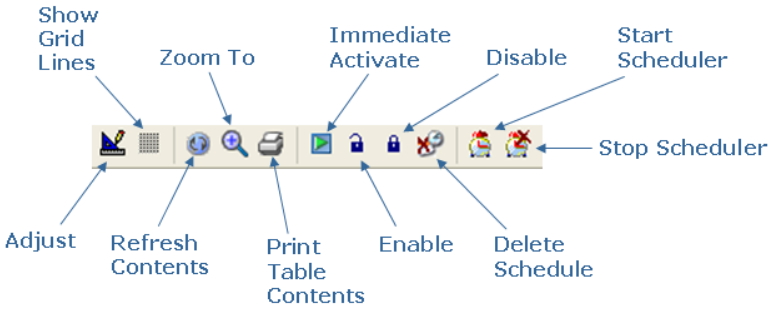
Exports the information displayed in the Activity List table.

**Refresh**

Refreshes the information displayed in the Activity List table with the latest data from the web application database.

**Note:** For more information about the Web Client Scheduler Status Window, see the *CA Vantage Web Client Guide*.

The Windows Client Schedule List dialog provides the following toolbar options:



**Note:** For more information about the Scheduler and Schedule List, see the *CA Vantage Windows Client Guide* and the *Help on Windows* online help system.

## JCL Management

You can submit jobs manually from the Windows Client, either immediately or at a scheduled time. When you create a job (JCL stream) to submit, you determine the type of job being submitted, the number of steps, and so on. The job can involve your CA GMI enabled CA product, standard IBM utility programs, your own utility programs, or any combination of these. You can also use IEFBR14 jobs for testing purposes.

**Note:** Currently, the Web Client does not have a JCL Management feature.

The Windows Client helps you specify substitution variables (symbolic parameters) in the sample JCL you provide, allowing you to create generalized model JCL.

CA GMI provides two options for managing your JCLs:

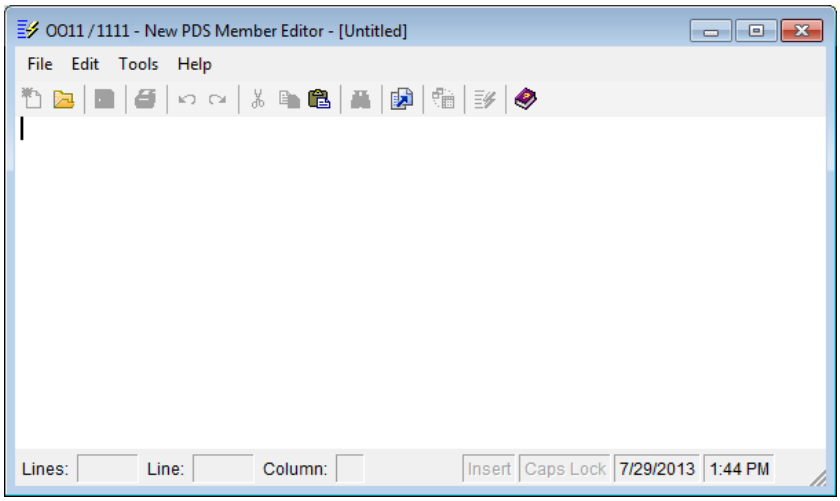
- The Member Editor (Submit) function
- The JCL Model List feature

## The Member Editor (Submit) Function

The Windows Client Member Editor (Submit) function under the z/OS menu in the Main Window can be used to manage your JCLs. You can use it to specify substitution variables (symbolic parameters) in your sample JCLs. It has a drag-and-drop feature that allows you to drag rows from object displays and drop them onto a JCL template in the Edit dialog. When you drag and drop the rows, the variables from the rows are substituted into the template. You can also use the Member Editor (Submit) function to submit jobs manually, either immediately or at a scheduled time.

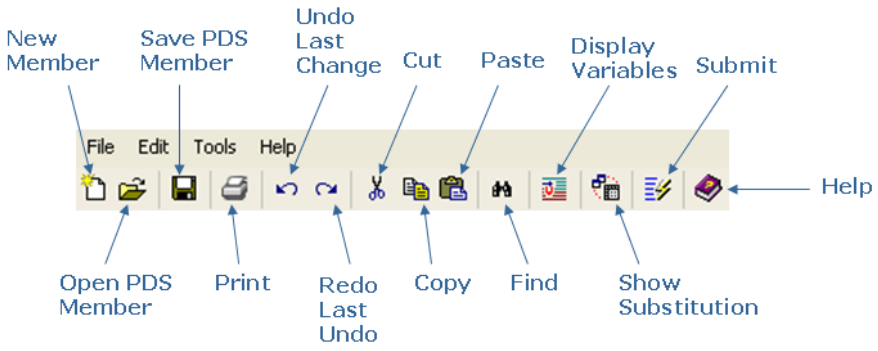
**Note:** Currently, the Web Client does not have a Member Editor (Submit) function.

The following is a sample of the Windows Client New PDS Member Editor dialog that is displayed when you select the Member Editor (Submit) function under the z/OS menu option.




**PDS Member Editor Dialog Toolbar Options**

The PDS Member Editor dialog provides the following toolbar options:




**Note:** For more information about PDS Member Editor options, click the Help icon on the PDS Member Editor dialog Toolbar.

## The JCL Model List Feature

The Windows Client JCL Model List feature helps you manage JCL. The JCL Model List feature provides the same functionality as the Member Editor (Submit) function however it presents your JCL working environment (the Object Table, the Associated JCL Members, the Substitution Variable List, and the PDS Member Editor) in one window so that working with your JCL is much easier.

**Note:** Currently, the Web Client does not have a JCL Model List feature.

You can use the Windows Client JCL Model List feature to select JCL models to be used by objects or a group of objects using pattern matching. These models can be used to perform actions or mainframe management functions in batch jobs. The models can contain object variables that are substituted upon request or at submit time.

You can start the JCL Model List feature two ways, from the Object Tree Pop-up Menu or from the object view Toolbar.

**To start the JCL Model List feature from the Object Tree pop-up menu in the Windows Client**

1. Right-click an object in the object tree.

   The Object Tree pop-up menu appears.

2. Click the JCL Model List option.

   The JCL Model List dialog appears.

**To start and use the JCL Model List feature from the object view Toolbar**

1. Click the object in the object tree.

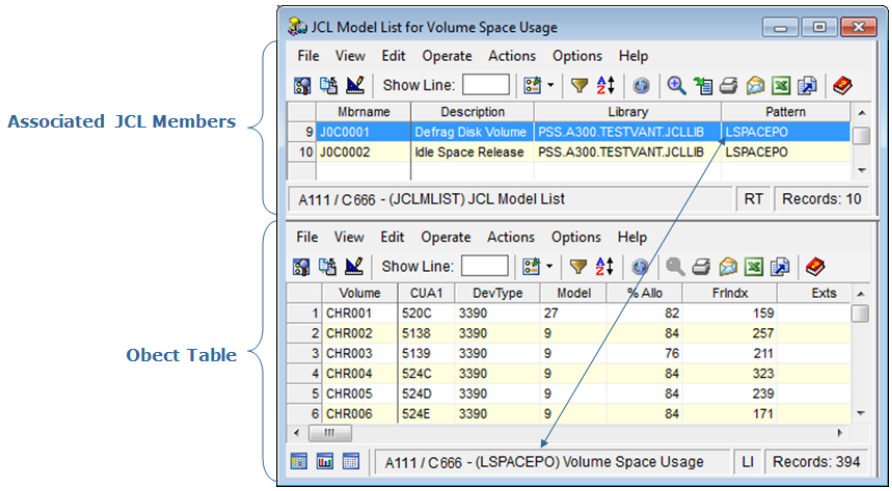
   The Object view appears.

2. Click the down arrow next to the Definitions icon in the object view Toolbar.

   The Definitions drop-down menu appears.

3. Click the JCL Model List option.

   The JCL Model List dialog appears. The JCL Model List dialog displays the object data and the list of JCL members associated with that object in separate panes as shown in the following sample:



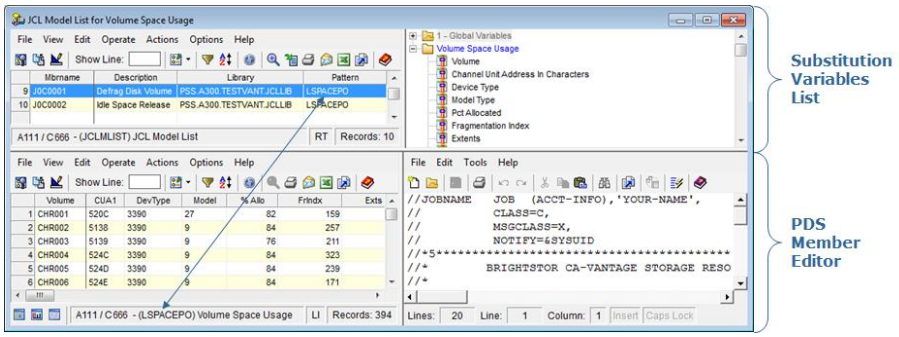

   The Object Table pane displays the object selected. You can use the object view menu options in the pane to change the object view, such as sort, filter, zoom, and so on.

   The Associated JCL Members pane displays the JCL models you have created and linked to the object selected. You can use the Associated JCL Members Action options to modify the JCL Model information displayed in the pane, add new JCL models, and to delete JCL Models.

   **Note:** For more information about the Associated JCL Members pane, click the menu bar Help option and select Help About Object.

4. Double-click a model line, and two additional panes appear in the JCL Model List dialog; the Substitution Variable List for the object, and the PDS Member Editor with the model JCL.

   The following sample shows how the JCL Model List displays all 4 panes in the JCL Model List dialog.




   Using the PDS Member Editor pane you can edit the model JCL, create new JCL Models, insert variables, substitute variables with object information, submit the JCL, and so on.

   **Note:** For more information about PDS Member Editor options click the Help option on the PDS Member Editor pane Menu Bar.

5. Click your cursor in the JCL in the PDS Member Editor pane where you want a variable to be inserted, and then double click the desired variable in the Substitution Variable List pane.

   The variable appears in the PDS Member Editor pane where you indicated.

6. Repeat step 5 until you have included all your variables in the PDS Member Editor pane.

   Now you are ready to substitute the variables in your JCL with object line information.

7. Click a line or multiple lines in the Object Table pane, then drag-and-drop them into the PDS Member Editor.

   When you do this, a new PDS Member Editor dialog is opened with the resulting JCL; that is, the field values from your selected object table lines are substituted into the variable locations in a copy of your JCL model in a new PDS Member Editor dialog.

8. Click the Submit icon in the PDS Member Editor Toolbar when your JCL is complete and you are ready to submit it.

   A message dialog appears advising that your JCL has been submitted.

**Note:** For more information about working with the JCL Model List, see the *CA Vantage User Guide.*

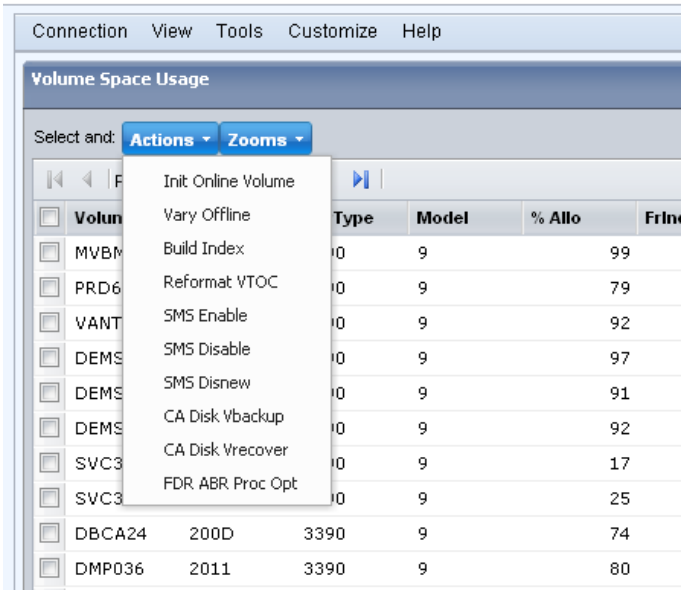
## User-Interface Object Action Options

The Actions option is only available for certain objects and it is used to perform actions on specific object items. The actions available for an object relate to specific functionality of the object being accessed.

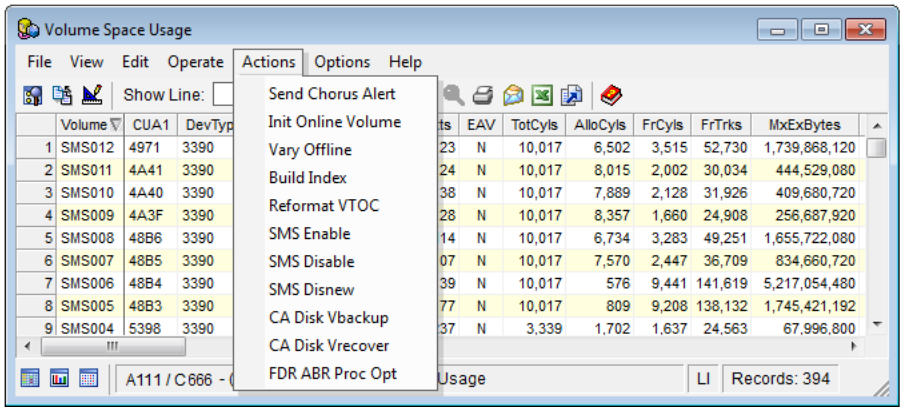
**Note:** If the Windows Client *Help on Object* or the Web Client *Object-object_name-Help* for an object lists Actions, but the Actions menu option does not display any Actions, it is because your CA GMI license does not authorize you to use them.

### Example: Display of the Action menu of the Volume Space Usage object

The following is a sample of the Volume Space Usage object Action menu displayed in the Web Client:



The following is a sample of the Volume Space Usage object Action menu displayed in the Windows Client:




**Note:** When object actions are performed, security checks are made with the proper access levels. The user ID for each security check will be either the user ID associated with the CA GMI started task, or the user ID that owns the script (the person who created or last modified it). For more information about the security system, see the description of system parameter SECURSCR in the *CA Vantage Configuration Guide*.

## Display Actions Dialog Feature

You can use the actions dialog feature to perform actions on certain objects.

**To start the Actions dialog feature**

1. Click an object in the Object Tree.

   An object in Table View appears in your user-interface window.

2. Select a line or group of object data in the object Table that you want to perform the action on.

   The line or lines of object data in the Table View is selected.

3. If you are using the Windows Client, click Actions in the Table View Menu Bar. If you are using the Web Client, click Actions in the object Menu Bar.

   The Actions drop down list appears.

4. Click the Action you want to perform.

   The Actions dialog appears.

**Note:** For more information about how to use the Actions dialog view the *Help on Window* online help system in the Windows Client or the *Navigation* online help system in the Web Client. For more information about an object and available object actions view the *Help on Object* online help system in the Windows Client or the *Object-object_name-Help* online help system in the Web Client. If the *Help on Object* for an object or the *Object-object_name-Help* online help system lists Actions, but the Actions menu option does not display any Actions, it is because your CA GMI license does not authorize you to use them.

## User-Interface Online Help Systems

Both the Web Client and the Windows Client have two types of online help systems:

**Windows Client**

**Help on Window (Help About Window)**

Provides information on how to use Windows Client features and if you click Help About Window from a window or dialog Help menu option it provides help about the opened window or dialog. This online help system also has a search facility.

**Note:** From the object tree this help is called Help on Window and when you have a window open and you click the Help menu option this is called Help About Window.

**Help on Object (Help About Object)**

Provides object specific information. It includes a description of the object, actions available, and information about the object data fields in the object.

**Note:** If the *Help on Object* for an object lists Actions but the Actions menu option does not display any Actions it is because your CA GMI license does not authorize you to use them.

**Note:** From the object tree, this help is called Help on Object, and when you have the object open in a window and click the Help menu option, this is called Help About Object.

**To access the Windows Client Help on Window (Help About Window) online help system**

1. Click the Help icon (  ) displayed in an open window or dialog.

   The help topic that pertains to that window or dialog is displayed.

   Most windows and dialogs also have a Help menu option where you can select Help About Window to display the help topic that pertains to that window or dialog is displayed.

You can also open this online help system from the main Windows Client menu by clicking the Help menu option and selecting CA SRM and CA Vantage Help Topics or by clicking the Help icon ( ) in the main Windows Client toolbar.

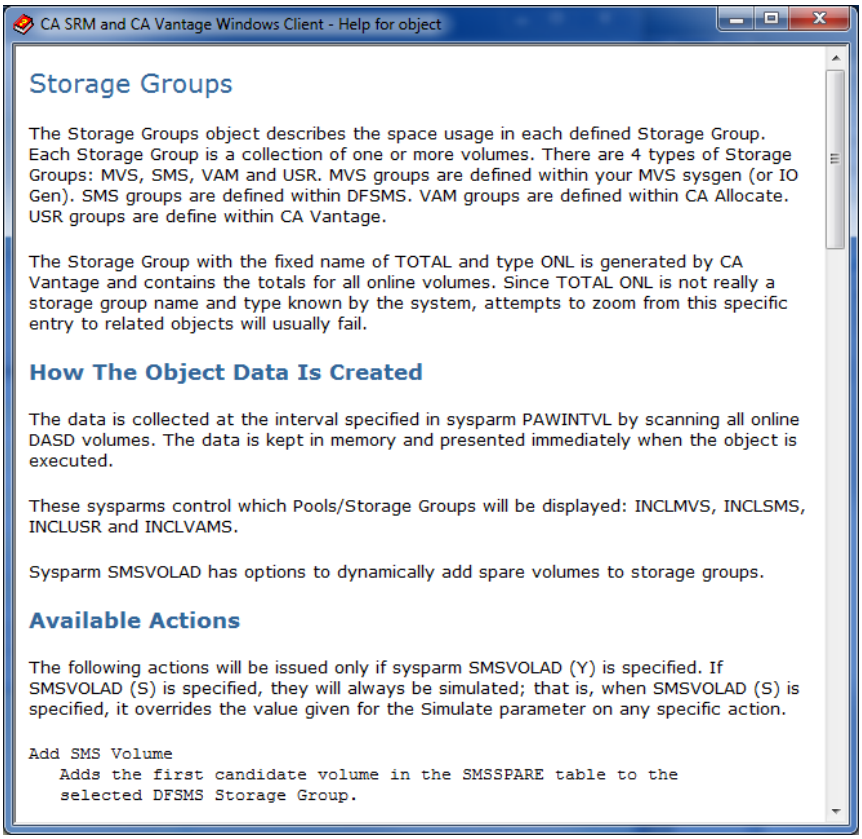
**To access the Windows Client Help on Object (Help About Object) online help system**

1. Right-click on an object in the Object Tree dialog.

   The Object pop-up menu appears.

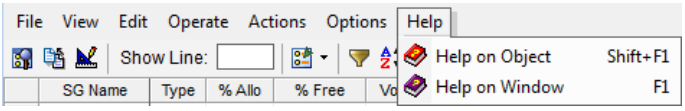
2. Click Help on Object.

   The Help on Object system appears showing the help page related to the object selected as shown in the following sample of the Help on Object for the Storage Groups object.



#### Example: Display help from an object view

You can also access the Help on Object (Help About Object) and the Help on Window (Help About Window) online help systems from the Help menu item in the object view Menu Bar as shown in the following sample of the an object table view Menu Bar.




### Web Client

#### Navigation Online Help

Provides information on how to navigate the Web Client and use Web Client features. If you click Help then Navigation from a window, wizard, or dialog, the online Help topic displayed provides help about the opened window, wizard, or dialog. This online help system also has an index and a search facility.

#### Object - *object_name* - Help

Provides object specific information. It includes a description of the object, actions available, and information about the object data fields in the object.

**Note:** If the Object - *object_name* - Help for an object lists Actions, but the Actions menu option does not display any Actions, it is because your CA GMI license does not authorize you to use them.

#### To access the Web Client Navigation online help system

Click Help and then Navigation in the object Menu Bar, or in the opened window, wizard, or dialog. The help topic that pertains to that open window, wizard, or dialog is displayed. The help topic displayed when you click Help and then Navigation in the object Menu Bar is the Welcome page.

You can also open this online help system by clicking Help in the top line of the main Web Client window.

#### To access the Web Client Object - *object_name* - Help online help system

Click Help and then Object - *object_name* - Help on the object Menu Bar. The Object - *object_name* - Help appears showing the help page related to the displayed object.

# Chapter 2: Setting Up CA GMI

This chapter explains how to set up CA GMI.

This section contains the following topics:



## CA GMI Components

CA GMI consists of the following two components:

**z/OS Server**

Installed on the mainframe.

**User-Interface (PC) Clients**

The following user-interface clients are available:

**Windows Client**

This client is a Windows-based user-interface. This client provides full functionality and when you install the Windows Client you also install the Config Client and the CA Vantage documentation set. You can use the Config Client to set CA Vantage parameters.

**Web Client**

This client is a web-based user interface. The client can be used from any PC with internet access to the web client application server. You can access the CA Vantage documentation set from the web client. The current web client provides partial functionality compared to the Windows client.

**Note:** Install the Windows client first and then the web client. The Windows client contains the Config client which you can use to set CA Vantage system parameters.

**3270-based interface (View 3270 Client)**

This client provides partial functionality that is limited to:

- User-driven functionality of view and analysis
- Filtering and sorting, zooming
- Ability to initiate actions on selected entries

**Note:** The View 3270 Client is considered a character-based user-interface, not a graphic-based user-interface, so it is not discussed in this guide. For View 3270 Client installation and configuration information, see the chapter "Configuring CA GMI" in the *CA Vantage Configuration Guide*. For more information about using the View 3270 Client, see the chapter "Navigating the View 3270 Client" in the *CA Vantage User Guide*.

# Install and Configure CA GMI

In order to use CA GMI you must install and configure both the z/OS component and at least one of the User-Interface (PC) Client components (you can use the Windows Client, the Web Client, or both).

**Note:** If you have already installed CA GMI components for one of the other CA GMI enabled products, there is no need to install the components again, however you must perform step 4 in the following procedure for the CA GMI qualified product. If you are installing the components for the first time, ensure that you have received the proper installation materials for the z/OS and the User-Interface (PC) Client components. If you do not have all the installation materials you need, then contact CA Support at http://ca.com/support.

**To install and configure both components of CA GMI**

**Note**: System software and hardware requirements for both components of CA GMI can be found in the *CA Vantage Installation Guide*.

1. Install the z/OS server as described in the *CA Vantage Installation Guide*.

   The z/OS server is installed on your z/OS system.

2. Install the Windows Client as described in the *CA Vantage Installation Guide*.

   The Windows Client is installed on at least one PC.

   **Note:** When you install the Windows Client, you also install the CA Vantage Config Client which you can use to set CA Vantage system parameters. If you want to use the Web Client, we suggest you install it after you have completed step 8. However, you can install the Web Client after you have completed step 3 and to be able to use it to work with CA GMI enabled product objects you must complete step 4 for each CA GMI enabled product. For more information about installing, navigating, and using the Web Client, see the *CA Vantage Web Client Guide*.

3. Configure the parts of the z/OS server that are common to all CA GMI enabled products as described in the chapter “Configuring CA GMI” in the *CA Vantage Configuration Guide*.

   Common CA GMI parts of the z/OS server are configured on your z/OS system.

4. Configure the parts of the z/OS server that are specific to your CA GMI enabled product according to the chapter “z/OS Host Configuration" in this guide.

   Your CA GMI enabled product objects are defined for retrieving your CA GMI enabled product object data by the CA GMI user-interface.

   **Note:** If you want to use the Web Client you can install it now or after you complete step 8. For more information about installation, starting, navigation, and using the Web Client, see the *CA Vantage Web Client Guide*.

5. Start the Windows Client according to the section Start and Log in to the Windows Client (see page 66).

   The Windows Client is up and running on your PC.

6. Define z/OS host connections as described in the section Define a z/OS Host (see page 70).

   At least one z/OS host is defined in your Host List.

7. Connect the Windows Client to a z/O host and login as described in the section Connect and Log In to the z/OS Host (see page 74).

   The Windows Client is connected and logged in to a z/OS host. You can start using it to view and work with object data.

8. Define the Windows Client data collection mode as described in the section Define the Data Collection (see page 75).

   Object data is automatically displayed in the object view when you open an object.

**Note:** The latest version of the CA Vantage documentation set is available at http://ca.com/support. However, you can install the Windows Client first (with no configuration) and then access the CA Vantage documentation set. To access the CA Vantage documentation set from the Windows Client click Start, Programs, CA, CA Storage Resource Manager, Documentation, and then Manuals - z/OS, or from the Windows Client main menu Help drop-down menu click Manuals - z/OS. The CA Vantage documentation set consists of the following documents:

- *CA Vantage Best Practices Guide*
- *CA Vantage Configuration Guide*
- *CA Vantage Installation Guide*
- *CA Vantage Message Reference Guide*
- *CA Vantage Reference Guide*
- *CA Vantage Release Notes*

- *CA Vantage User Guide*
- *CA Vantage Web Client Guide*
- *CA Vantage Windows Client Guide*

# Start and Log In to the Windows Client

If you want to use the Windows Client for your CA GMI session then you must start it.

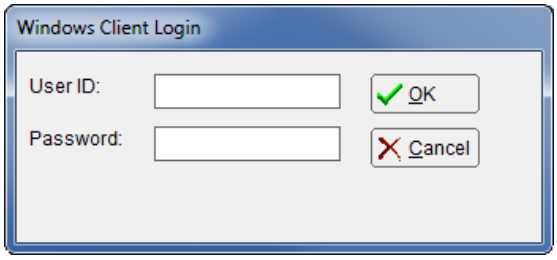
By default, when you start the Windows Client, you automatically log in as the ADMIN user (the default administrator), no Windows Client Login dialog appears, and the Windows Client Main Window appears. However, if this default was changed to require a specific user ID and password, the Windows Client Login dialog appears when you start the Windows Client and you must provide a valid user ID and password.

**Note:** For more information about creating and maintaining Windows Client logins, see the section User Manager in the *CA Vantage Windows Client Guide*.

**To start and log in to the Windows Client**

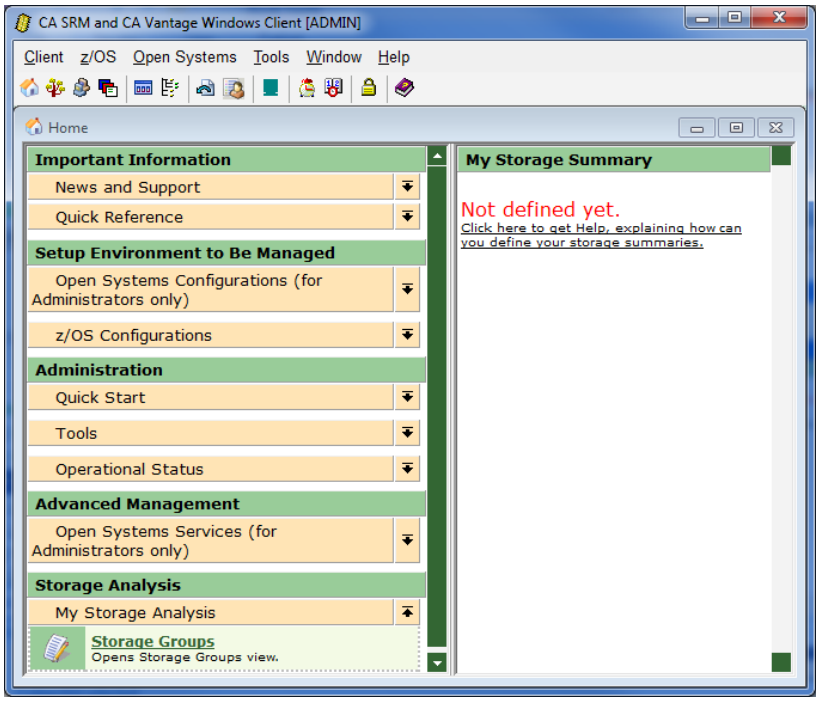
1. Click Start, Programs, CA, CA Storage Resource Manager, and select Windows Client.

   The Windows Client Login dialog appears as shown in the following sample.



2. Type in your Windows Client User ID and Password and click OK.

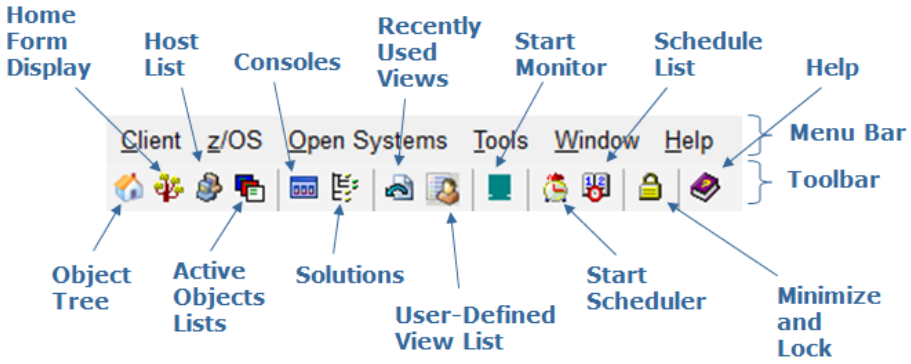
   The Windows Client Main Window appears with the Home Form dialog displayed as shown in the following sample.




To start the Windows Client, click Start, Programs, CA, CA Storage Resource Manager, and select Windows Client. If no Windows Client login is required, the Windows Client Main Window appears with the Home Form dialog displayed.

## Windows Client Menu Bar and Toolbar Options

The top of the main window of the Windows Client has the following Menu Bar and Toolbar options:

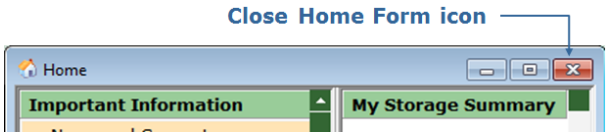



**Note:** For more information about the Windows Client Menu Bar and Toolbar options, see the *CA Vantage Windows Client Guide* or click the Help icon on the Windows Client Menu Bar.

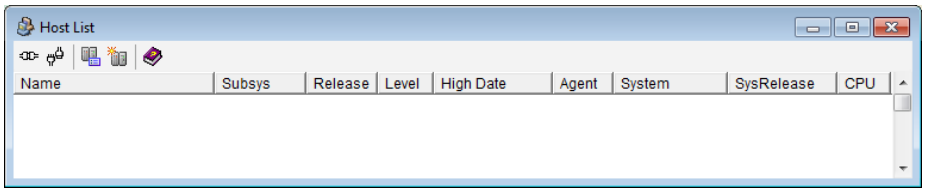
## The Windows Client View

Many Windows Client users prefer to close the Home Form window and display the Host List and the Object Tree windows.

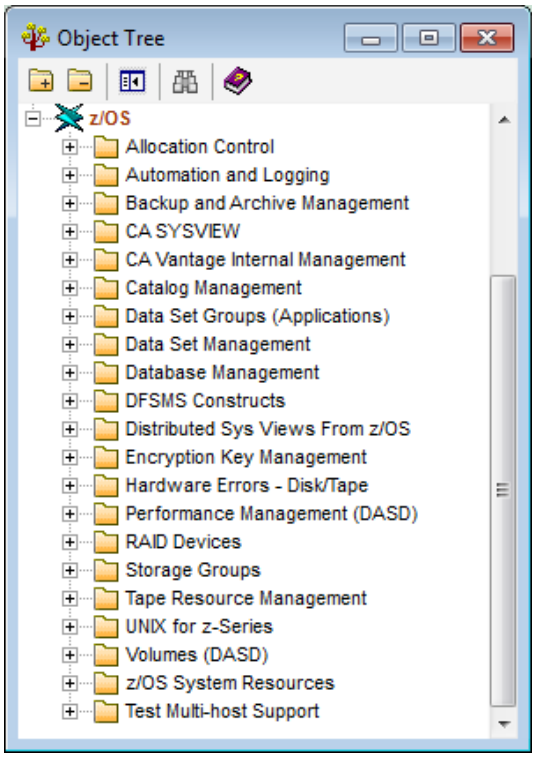
To close the Windows Client Home Form window click the Close icon located at the top right hand corner of the Home Form window, as shown in the following sample:



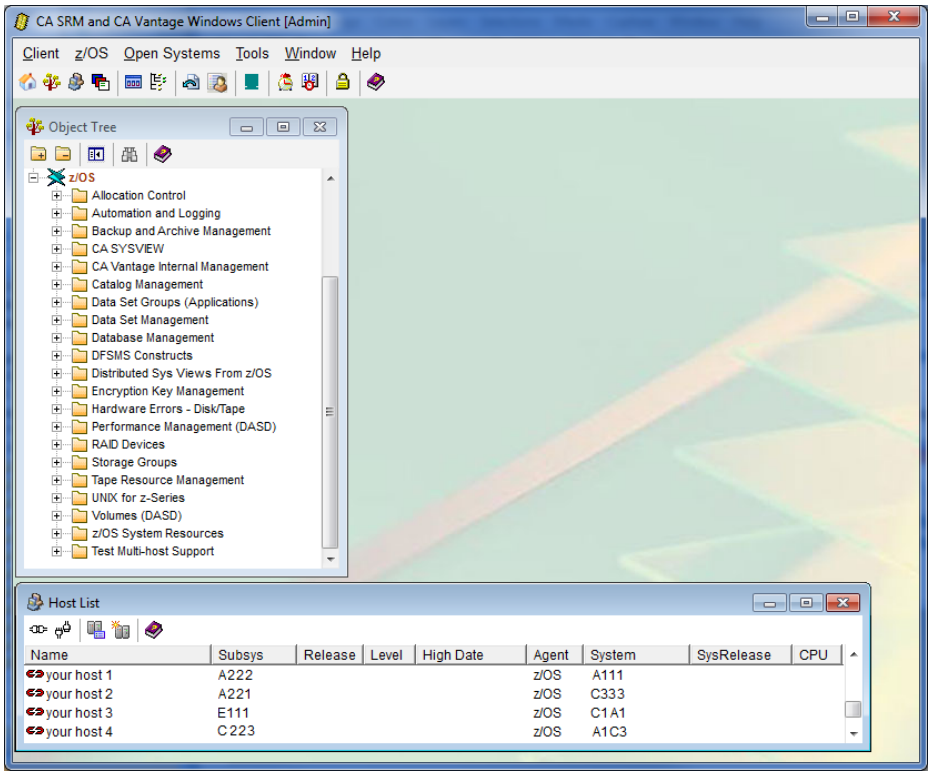

To display the Host List window click the Host List icon ( ) located in the Windows Client Toolbar. The following is a sample of an empty Host List window:



To display the Object Tree window click the Object Tree icon ( ) located in the Windows Client Toolbar. The following is a sample of the Object Tree window:



You can resize and move displayed windows in the Windows Client the same as you resize and move opened windows on your PC desktop. Arrange the Host List and Object Tree windows so they display as shown in the following screen capture sample.




# Define a z/OS Host

After starting the Windows Client you need to connect the Windows Client to the z/OS server component. In order to connect the Windows Client to the z/OS server component, you must first define the z/OS server or servers that you plan to use. The Windows Client Host List feature is used to define z/OS server connections.

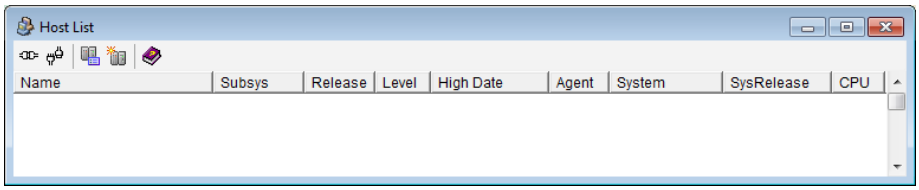
You can define as many z/OS servers as you want and you can simultaneously connect to as many z/OS servers as you want (as long you have installed and configured the z/OS server component on them).

**To define a z/OS host**

**Note:** The following procedure assumes you have started the Windows Client and the Host List window is not displayed. If the Host List window is already displayed then you can skip step 1.

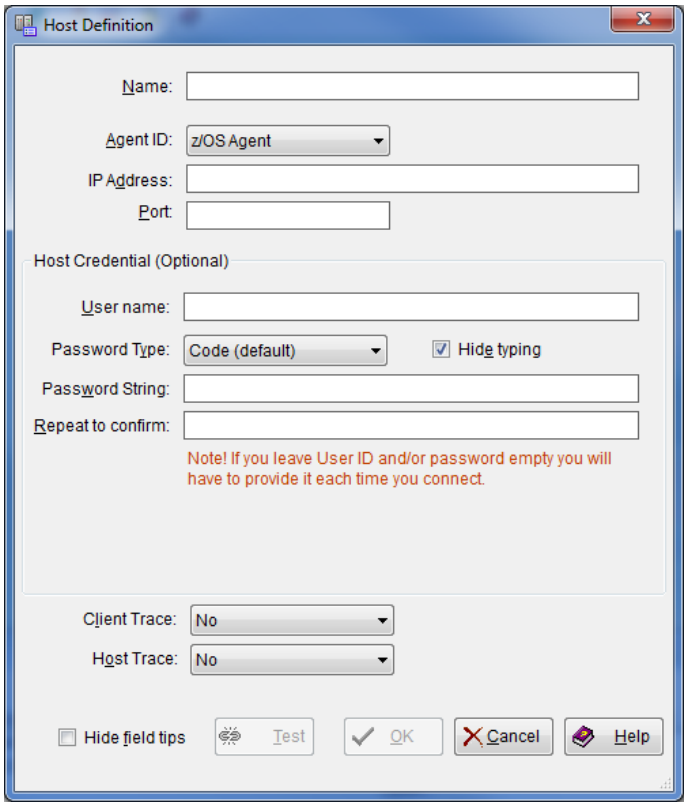
1. Click the Host List icon ( ) in the Windows Client toolbar.

   The Host List dialog appears as shown in the following sample.




2. Click the New Host icon ( ) in the Host List window toolbar.

   The Host Definition dialog appears as shown in the following sample.



3. Complete the Host Definition dialog, the field options are:

**Name**

Provides the Host Name displayed in the Host List dialog.

**Agent ID**

Provides the name of the agent that collects data from the host. Select z/OS Agent if it is not already displayed.

**IP Address**

Defines the IP address or server name of the z/OS host to which you are connecting.

**Port**

Defines the port number of the z/OS host to which you are connecting.

**User name**

(Optional) Provides the user ID, which is sent to the host in encrypted form. If you leave the user name, password, or both fields empty, you will have to provide them each time you connect to the host. However, if the host will be used in scheduled operations this information is required.

**Password Type**

Select the password type in the Password Type drop-down list. The host definition supports the following types of passwords:

**Code (default)**

A combination of up to 8 characters.

**Phrase**

A passphrase of up to 100 characters.

**Token+PIN**

A two-factor RSA authentication token and PIN of up to 8 characters each.

**Password String**

(Optional) Provides the password string, which is sent to the host in encrypted form. If you do not specify a password string then you must enter it every time you try to connect the Windows Client to the z/OS host.

**Note:** You also have the option of providing the z/OS host user ID and not the password when setting up your Host Definition; this is often done at sites where security policies require Passwords to be changed periodically. If the host will be used in scheduled operations, the password string is required.

**Confirmation**

Renter the password string. If you provide a Password String then you must provide the same password string in the confirmation field.

**Client Trace**

(Optional) Indicates if the system should save the messages relating to host-client communication in a log file. For more information about this field click the Help icon. Normally you will only select this if requested to do so by CA Support.

**Host Trace**

(Optional) Creates a trace on the host of all the messages exchanged between the z/OS host and the Windows Client. For more information about this field click the Help icon. Normally you will only select this if requested to do so by CA Support.

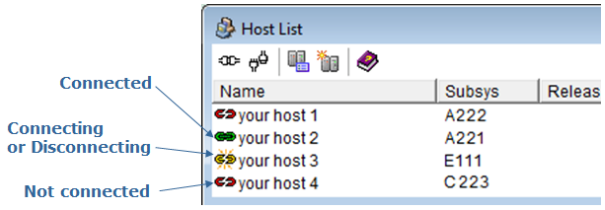
4. Click Test to test your connection information.

   The Windows Client advises you if your connection to the z/OS host is successful.

5. Click OK.

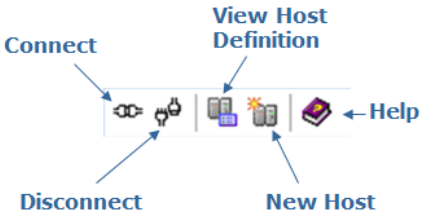
   The Windows Client stores the host definition. The new host definition appears in the Host List window. The Host List window displays all your defined hosts and their connection status.

   The following is a sample of the Host List window showing the different connection status icons.




## Host List Dialog Toolbar Options

The Windows Client Host List dialog provides the following toolbar options:



# Connect and Log In to the z/OS Host

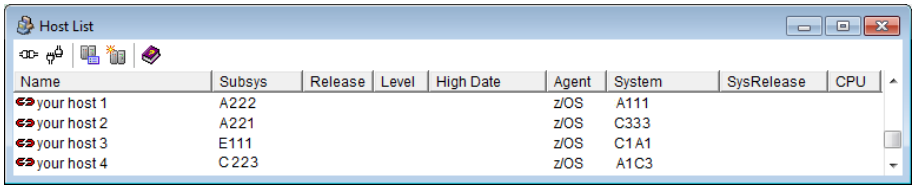
After you start the Windows Client and have defined z/OS host connections, you can then connect the Windows Client to a z/OS host and log in to the z/OS host. Once that is done you can start using CA GMI.

**To connect and log in to the z/OS host**

**Note:** The following procedure assumes you have predefined your z/OS hosts and they are displayed in the Host List window. If you do not have predefined hosts in the Host List window then see the section Define a z/OS Host (see page 70). If the Host List window is already displayed in your Windows Client window then skip step 1.

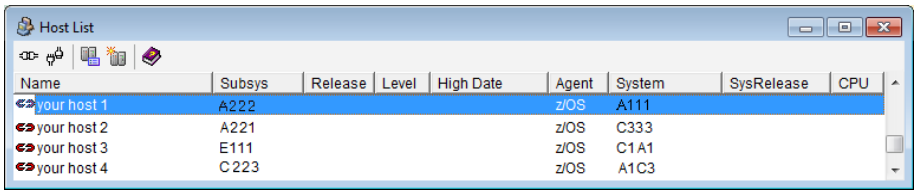
1. Click the Host List icon (  ) in the main Windows Client toolbar.

   The Host List window opens. The following is a sample of the Host List window:




2. Select the host to which you want to log in to from the Host List window.

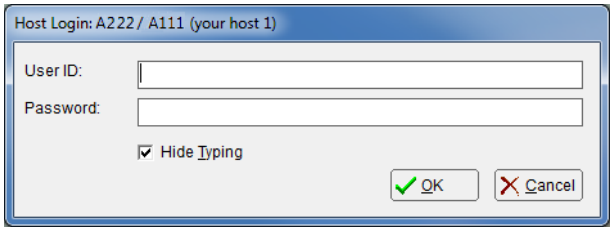
   The selected host definition is highlighted. as shown in the following sample.



3. Click the Connect icon ( ) in the Host List window toolbar.

   If your user ID and password were provided in the Host Definition dialog for the selected host, the Windows Client attempts to connect to the host. If the connection is successful then the connection status icon changes from the Not Connected icon ( ) to the Connected icon ( ). You can begin using CA GMI and you can skip step 4.

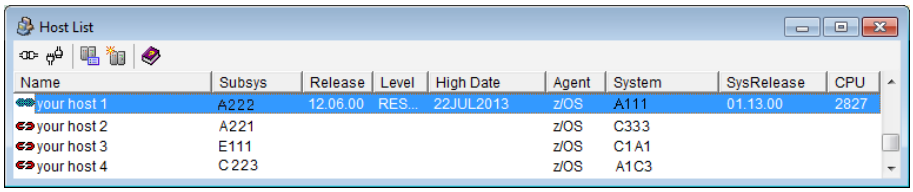
   If your user ID and password were not provided in the Host Definition dialog for the selected host, then the Host Login dialog appears as shown in the following sample dialog, and you must proceed to the next step.




4. Enter a valid user ID and password in the Host Login dialog, and click OK.

   The Host Login dialog disappears.

   The Windows Client attempts to connect and log on to the z/OS host. When the connection and log on is complete, the connection icon in the Host List window changes from the Connecting icon ( ) to the Connected icon ( ), as shown in the following sample, and you can begin using CA GMI.




**Note:** For more information about defining hosts and connecting to hosts, see the *CA Vantage Windows Client Guide* or the online help.

# Define the Data Collection Mode

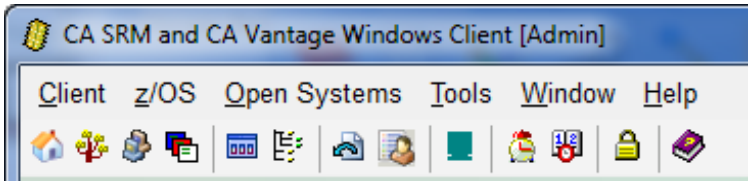
CA GMI can be configured to collect data in either Automatic or Manual mode.

- In Automatic mode, object data is collected automatically when you open an object.
- In Manual mode, object data is only collected by the Windows Client when you click the Execute icon ( ) in the open object view Toolbar.

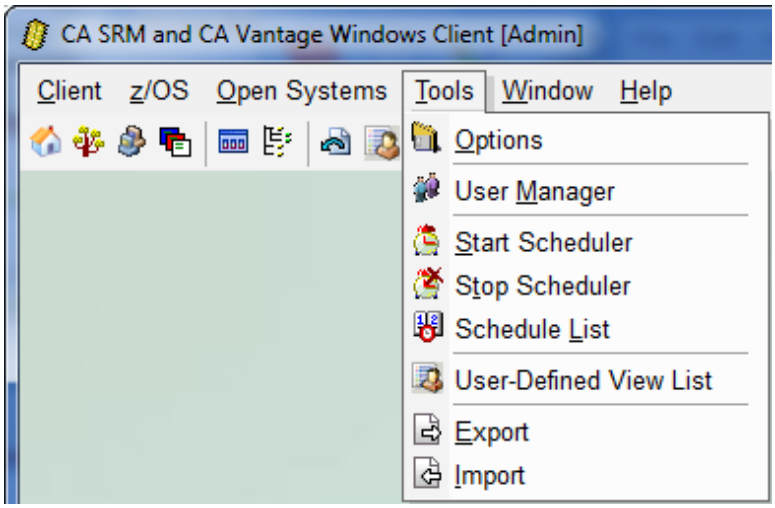
**To define the data collection mode in the Windows Client**

1. Click Tools in the Windows Client main window Menu Bar.

   The following is a sample of the Windows Client main window Menu Bar and Toolbar.



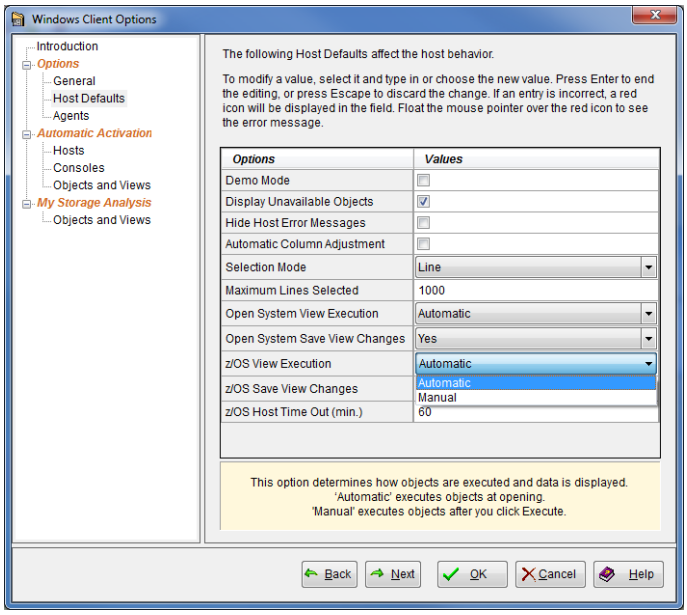

   The Tools menu expands to display available items, as shown in the following sample:




2. Select Options from the Tools menu drop-down list, to open the Windows Client Options wizard.

3. Select the Host Defaults page in the navigation tree in the left-side panel of the Windows Client Options wizard.

4. Select the drop-down arrow in the z/OS View Execution field, to display the options, as shown in the following sample:




5. Select the mode you want the system to use and click OK.

   The Windows Client Options wizard closes. When you select an object in the Object Tree the Windows Client will collect data based on the mode that you have selected.

   **Note:** The examples in this guide assume that Automatic mode is selected.

# Closing the Windows Client

When you close the Windows Client it will log you off from your connected hosts. However, when you are finished working you should disconnect from hosts first then close the Windows Client.

**To close the Windows Client**

1. Select the host you are connected to in the Host List dialog.

   The selected host is highlighted.

2. Click the disconnect icon ( ) in the Host List dialog.

   The status icon of the selected host will change from connected ( ) to disconnected ( ).

3. Repeat steps 1 and 2 and close all host connections.

   All hosts displayed in the Host List dialog are displayed with the disconnected icon (  ).

4. Close the Windows Client by clicking the Close icon (  ) in the top right hand corner of the Windows Client.

   The Windows Client is no longer displayed.

# Chapter 3: z/OS Host Configuration

This section contains the following topics:



## Before You Start

The instructions in this chapter assume you have performed the first two steps described in the section Install and Configure CA GMI (see page 64). Do not perform the instructions in this chapter before you have completed those steps.

After you have completed the instructions in this chapter, return to the chapter "Setting up CA GMI", and perform the rest of the steps listed in the section Install and Configure CA GMI (see page 64).

## Configure CA GMI for CA Vtape

**To configure the CA GMI for CA Vtape**

**Note:** Some steps in this procedure involve setting security access authority, see your security administrator to confirm or establish the proper access authorities for those steps. For more information about security, see the section Actions Against Tape Related Objects in the topic "Security Topics" in the CA Vantage Reference Guide.

1. Ensure that CA Vtape and CA Vantage are running on the same z/OS image.

   They must be on the z/OS image because CA Vantage uses cross memory services to obtain data from the VCAT Dataspace of CA Vtape.

2. Ensure that CA Vtape is started before CA Vantage, and shutdown after CA Vantage.

   This order ensures that CA Vtape is always available when CA Vantage requests information. If CA Vtape is shutdown at the exact time CA Vantage is collecting data, abends may occur.

3. Ensure that DSN=*your.ca.vtape.loadlib* is available to CA Vantage when it starts.

   If this library is in your system linklist, there is nothing more to do. If it is not in the linklist, then edit the SAMS JCL procedure and concatenate it to the //STEPLIB DD statement.

   CA Vantage can now find the API to query CA Vtape for information.

   **Note:** When an API is not available, CA Vantage customarily intercepts the 806 abend and issues appropriate messages. z/OS usually issues the message: CSV003I REQUESTED MODULE <*pgmname*> NOT FOUND.

4. Use the CA Vantage Config Client to set appropriate values for the following system parameters:

   **VTAPNTVL**

   Specify the number of minutes to wait for the collection of new CA Vtape statistics, valid values are 1-9999. The default is value is (30).

   **VTASUPP**

   Specify (Y) to activate support for CA Vtape.

   **VTPDSNCK**

   The default value of Yes (Y) allows users with ALTER access to a Data Set the ability to RECALL the data set from CA Vtape. Specify a value of No (N) if you want the RECALL ability to be controlled solely by sysparm TAPADMIN, which requires ALTER access to the TAPADMIN resource name.

   **Note:** For more information, see the description of system parameter TAPADMIN in the *Configuration Guide*.

   These system parameter values take effect the next time the CA Vtape component within CA Vantage is started.

   **Note:** For more information about the CA Vantage Config Client, see the chapter "Configure CA GMI" in the *CA Vantage Configuration Guide*.

5. Allow CA Vantage to create objects for Virtual Volumes and Virtual Volume Data Sets.

   To do this, give the user ID associated with the CA Vantage started task read access to the Global VCAT for CA Vtape.

   CA Vantage now has the required security access to build these two objects.

6. Allow appropriate users access to the CA Vtape Free Queue information.

   To do this, give the appropriate user IDs read access to the BSDS1 data set.

   Users that have been given this access can now work with the CA Vtape Free Queue object.

7. Allow appropriate users to perform Actions on the CA Vtape objects.

   To do this, give the appropriate user IDs read access to the TAPADMIN resource facility.

   **Note:** For more information, see the description of system parameter TAPADMIN in the *CA Vantage Configuration Guide*.

   Users that have been given this access can now perform Actions on the CA Vtape objects.

8. Enable the CA Vtape component within CA Vantage.

   To do this, edit the CONFIG member of your PARMLIB and uncomment the COMP=VTAPE statement.

   The CA Vtape component within CA Vantage will now be activated whenever CA Vantage is started.

   Configuration of the CA Vtape component within CA Vantage is now complete. The CA Vtape objects and services are now available whenever you start CA Vantage.

9. Stop and Restart CA Vantage.

   The CA GMI is up and running.

Return to the section Install and Configure CA GMI (see page 64) and continue the rest of the setup. The instructions tell you how to start the Windows Client and create host definitions so that you can work with CA Vtape objects as described in the chapter "Using CA Vtape Objects".

# Chapter 4: Using CA Vtape Objects

This section contains the following topics:



## Using the Windows Client to Access CA Vtape Objects

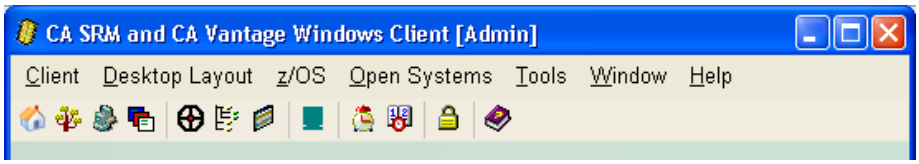
All CA Vtape objects are included in the CA Vtape folder of the Object Tree. This folder is a sub folder found under Tape Resource Management, then Virtual Tape Systems.

**Note:** Before you begin, make sure that the z/OS host that you want to connect to is up-and-running. For procedures on defining a z/OS Host, see the chapter "Setting Up CA GMI".

**To access CA Vtape objects**

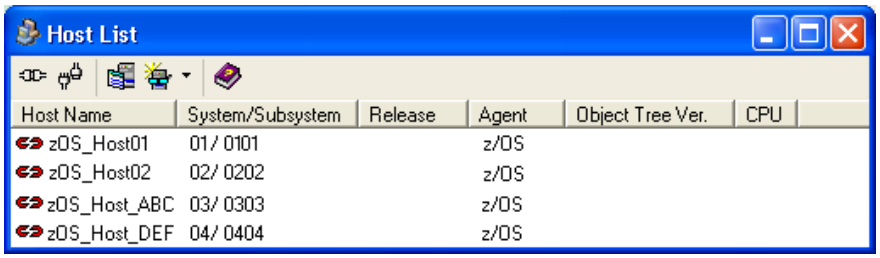
1. Click Start, Programs, CA, CA Storage Resource Manager, and select Windows Client.

   The Windows Client appears. The following is a sample of the Windows Client main window Menu Bar and Toolbar:




2. Click the Host List icon ( ) in the Windows Client main windows Toolbar.

   The Host List dialog opens. The following is a sample of the Host List dialog:



3. Select the z/OS host that you want to connect to and click the Connect icon .

   If your user ID and password were provided in the Host Definition dialog for the selected host, the Windows Client attempts to connect to the host. If the connection is successful then the connection status icon changes from the Not Connected icon to the Connected icon and you can skip to Step 4.

   If your user ID and password were not provided in the Host Definition dialog for the selected host, then the Host Login dialog appears and you must proceed to Step 4.

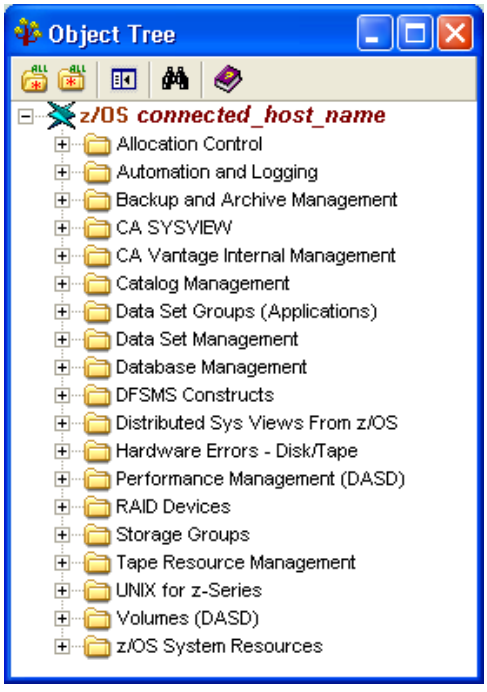
4. Enter a valid user ID and password in the Host Login dialog, and click OK.

   The Host Login dialog disappears.

   The Windows Client will attempt to connect and log on to the z/OS host. If the connection is successful then the connection status icon in the Host List dialog changes from the Not Connected icon to the Connected icon . CA GMI will collect information from the z/OS host that you have chosen to connect to.

5. Click the Object Tree icon in the Windows Client main windows Toolbar.

   The Object Tree dialog appears. The following is a sample of an Object Tree:




6. Click the plus sign next to the Tape Resource Management folder.

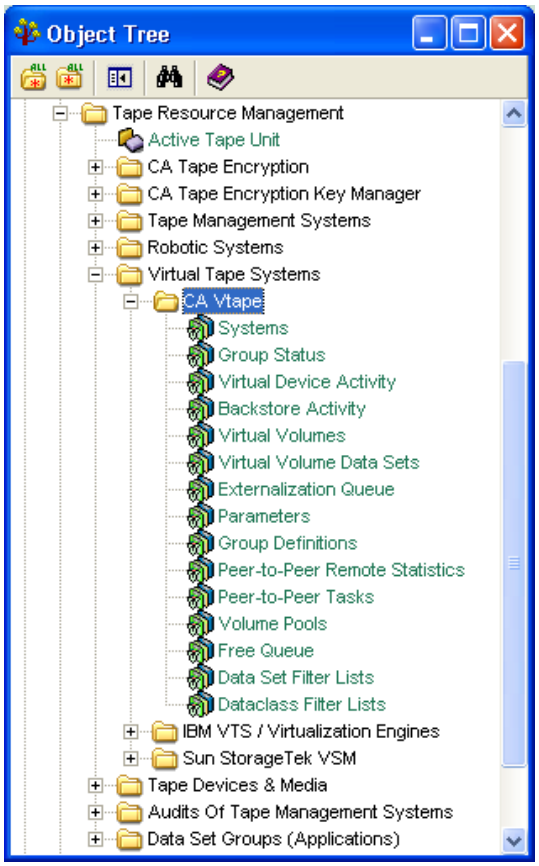
   The Tape Resource Management folder is expanded and displays tape management subfolders.

7. Click the plus sign next to Virtual Tape Systems.

   The Virtual Tape folder is expanded and displays virtual tape subfolders.

8. Click the plus sign next to the CA Vtape folder.

   The CA Vtape objects are displayed in the Object Tree, as shown in the following sample:




# Using Objects for Analyzing CA Vtape Activity

The following sections explain how to use CA Vtape objects to analyze your virtual tape information. The following objects are available:

**Systems**

Displays information about the CA Vtape systems on a single z/OS image.

**Group Status**

Displays status about the CA Vtape Groups.

**Virtual Device Activity**

Displays a real time view of the Virtual tape devices being used by CA Vtape.

**Backstore**

Displays information about any active CA Vtape Backstore tasks.

**Virtual Volumes**

Displays information about a MVS defined volume in a CA Vtape system.

**Virtual Volume Data Sets**

Displays information about data sets on the Virtual Volume.

**Externalization Queue**

Displays information about the CA Vtape Externalization Queue.

**Parameters**

Displays the setting for each CA Vtape parameter.

**Group Definitions**

Displays definition information about CA Vtape Groups.

**Peer-to-Peer Remote Statistics**

Displays statistics for each Peer-to-Peer connection between CA Vtape and its defined remotes.

**Peer-to-Peer Tasks**

Displays information on each Peer-to-Peer task active in the CA Vtape system.

**Volume Pools**

Displays information on every Virtual Volume Pool defined to the CA Vtape system.

**Free Queue**

Displays information about the Virtual Volume Free Queue in the CA Vtape system.

**Set Filter Lists**

Displays the Data Set Filters that direct allocations to CA Vtape Virtual Devices.

**Dataclass Filter Lists**

Displays the Dataclass Filters that direct allocations to CA Vtape Virtual Devices.

These objects are described in the following sections in the order that they appear in the Object Tree.

## Systems Object

The Systems object contains all the information about the CA Vtape systems on a single z/OS image. The Systems object is useful for monitoring the status of CA Vtape subsystems. It provides an overview of the status of the each CA Vtape subsystem.

## Working with the Systems Object

The Systems object contains all the information about the CA Vtape subsystems on a single z/OS image. The Systems object is useful for monitoring the status of each subsystem. You can also perform actions on your CA Vtape subsystems using this object's Action options.

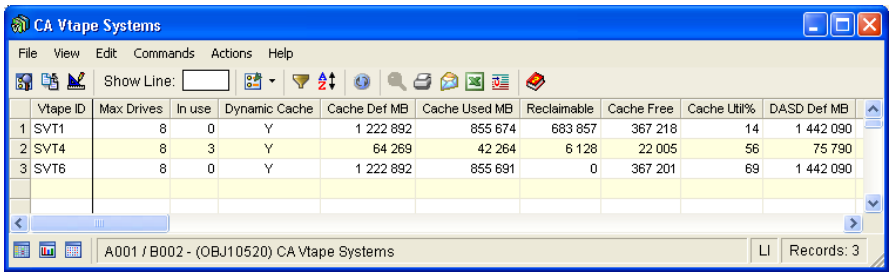
**To display Systems activity**

1. Open the Object Tree so it is showing the CA Vtape objects as described in the section Using the Windows Client to Access the CA Vtape Objects.

   CA Vtape objects are displayed in the Object Tree.

2. Click the Systems object in the Object Tree.

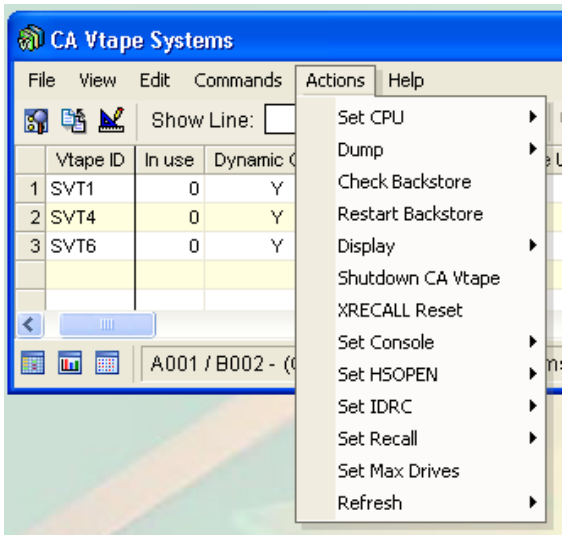
   The table view of the Systems object appears, as shown in the following sample:




**Note:** Click the Help About Object tool bar icon ( ), to display a description of the field values displayed in the columns in the Systems object.

**Systems Object Actions Menu**

The following is an example of the Actions menu on the Systems object view Menu Bar:



The following actions are available from the Actions menu option located on the Backstore Activity object view Menu Bar:

**Set CPU**

You can select one of the following options from Set CPU:

**Set CPU Standard**

Issue this command to place CA Vtape into CPU Standard Mode.

**Set CPU Isolation**

Issue this command to place CA Vtape into CPU Isolation Mode.

**Dump**

You can select one of the following options from Dump:

**CA Vtape**

This will cause the selected CA Vtape subsystem to be SVC dumped from the CA Vantage address space.

**Queue Dump**

This will cause the selected CA Vtape to have an SVC dump request queued in it. This will cause that address space to be 'current' in the dump. If the selected CA Vtape region is hung, the dump may not get taken.

**Check Backstore**

The CHECK BACKSTORE command checks the externalization queues looking for any virtual volume requiring externalization. The queues are browsed starting with GROUP=01 SUBGROUP=S and ending with GROUP=74 SUBGROUP=L. The SVTS subsystem automatically executes this command every 5 minutes, but you can issue it manually.

**Restart Backstore**

Gracefully stop all externalization tasks in progress, releasing the physical tape devices. Gracefully stop all recalls in progress, releasing the physical tape devices. Hold all externalization groups and restart SVTSAS.

**Display**

You can select one of the following options from Display:

**CSA**

This action can be used to report on summary CSA utilization by CA Vtape address spaces and any lost (unowned) CSA storage caused by subsystem restarts. CSA/SQA VSM tracking must be set to ON in the DIAG*xx* member of SYS1.PARMLIB.

**CSA Detail**

This action can be used to report on detail CSA utilization by CA Vtape address spaces and any lost (unowned) CSA storage caused by subsystem restarts. CSA/SQA VSM tracking must be set to ON in the DIAG*xx* member of SYS1.PARMLIB.

**Logger**

This action can be used to report the Logger status and activity level as it pertains to CA Vtape.

**Shutdown CA Vtape**

This action will cause CA Vtape to shutdown.

**XRECALL Reset**

This action will cause CA Vtape to re-initialize the common Recall Server area of the Global VCAT. This command removes all pending recall requests and may be needed in the event of critical common Recall Server area errors. It should be executed only once, in any subsystem, for a CA Vtape Complex.

Virtual Control Units waiting for Recalls will re-post the requests removed by this command a few minutes after this command completes; however, Recalls posted using the SVT*n* START RECALL= console command must be manually re-posted.

**Set Console**

You can select one of the following options from Set Console:

**Local**

This action can be used to reset a Set Console Remote request for the CA Vtape. The will cause CA Vtape to send unsolicited console messages only to the local CA Vtape.

**Remote**

This action can be used to route unsolicited CA Vtape console messages to a remote CA Vtape indentified by a remote console prefix. Once set, any unsolicited messages will be issued locally and at the remote CA Vtape.

**Set HSOPEN**

This command activates or deactivates the high-speed open option used by CA Vtape for externalizing or recalling virtual volumes to or from physical backstore files.

Virtual volumes are saved as files and stacked onto physical cartridges. Modern 10gb and 20gb cartridge devices can hold large numbers of these physical files. Open processing performed by the operating system normally positions to a relative file by issuing the forward space file channel command. This can result in significant delays as the relative position of a file increases (files near the front of the tape can be accessed quickly while files near the end of the tape take much longer). Applications can provide the block ID for open and this can significantly reduce the time to position to a specific file.

In order to use the high-speed open option CA Vtape records block IDs in the owner field of the catalog entry for the backstore files it creates on physical cartridges.

**Note**: Only the backstore files used by CA Vtape (that is, HLQ.VVE.V*nnnnnn*.PRIMARY/DUPLEX) are affected by the high-speed open option. Catalog entries for the user data sets written onto virtual volumes are not affected in any way by this option.

When the high-speed open option is activated, CA Vtape uses the owner field to record the block id.

When the high-speed open option is deactivated, CA Vtape does not record and/or use any information in the owner field.

While most shops do not use the owner field of the catalog, some shops may have other requirements which may prevent them from allowing CA Vtape to this field in this manner. By activating or deactivating the high-speed open option you can control CA Vtape's use of this field.

Once activated or deactivated the high-speed open option remains in effect across IPLs until specifically deactivated or activated. In multi-system CA Vtape configurations, the high-speed open option must be activated or deactivated on each individual system.

You can select one of the following options from Set HSOPEN:

**Set HSOPEN on**

Issue this command to activate high speed open.

**Set HSOPEN off**

Issue this command to inactivate high speed open.

**Set IDRC**

This command activates and deactivates the IDRC support. DEFAULT is the system default as specified in SYS1.PARMLIB(DEVSUP*xx*).

You can select one of the following options from Set IDRC:

**Set IDRC on**

Activate IDRC support.

**Set IDRC off**

Inactivate IDRC support.

**Set IDRC default**

Set IDRC to system default.

**Set Recall**

This command was created for Disaster Recovery flexibility. The default order for Recall from Backstore is from the Primary backstore data set. In a DR site it is likely the Duplex should be used, if it exists. This command allows the order to be switched at the local system (LPAR) level. The current value is displayed as the Recall order field using the SVTS STATUS command. The value is maintained across SVTS restarts.

You can select one of the following options from Set Recall:

**Set Recall PRI**

Set recall to primary.

**Set Recall DUP**

Set Recall to duplex.

**Set Recall TRI**

Set recall to triplex.

**Set Max Drives**

Issue this command to alter the number of physical drives that CA Vtape can use to perform externalization.

Parameters for Set Max Drives are:

**Number**

2 digit number (01-99). Default is 01.

**Refresh**

This causes the specific CA Vtape parameter component to be refreshed from the parameter library.

You can select one of the following options from Refresh:

**Refresh Options**

Causes the CA Vtape systems options to be refreshed.

**Refresh Groups**

Causes the CA Vtape group definition options to be refreshed.

**Refresh Filters**

Causes the CA Vtape data set and data class filters to be refreshed.

**Refresh Pools**

Causes the CA Vtape Volume Pool definitions to be refreshed.

## Zooming From the Systems Object

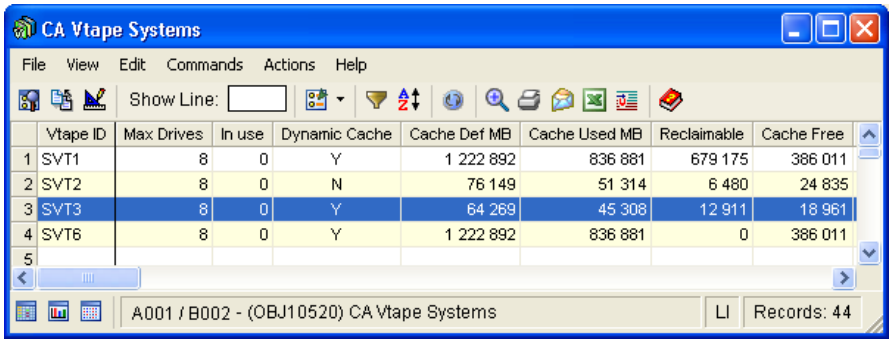
You can work with multiple objects at the same time using zooms. A zoom is a view of the same item in another object. You can use the zoom function to obtain more information about a selected record.

### Example of zooming from the CA Vtape Systems Object to the CA Vtape Peer-to-Peer Remote Statistics object

This example shows how you can select a CA Vtape system in the CA Vtape Systems object and display only that system's P2P statistic information.

1. Display the CA Vtape Systems object.

   The following is an example of the CA Vtape Systems object with the row containing the SVT3 system selected:



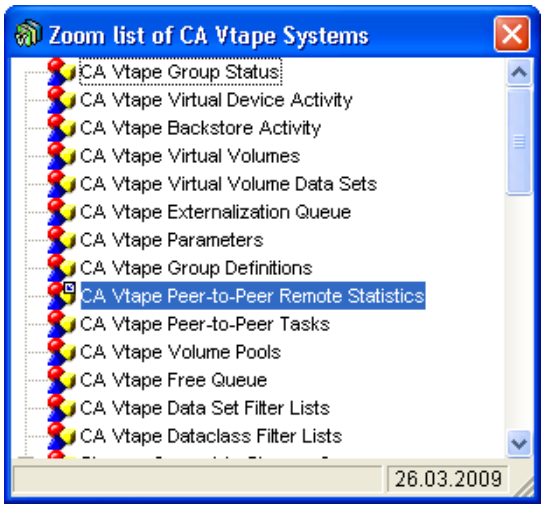

| | Vtape ID | Max Drives | In use | Dynamic Cache | Cache Def MB | Cache Used MB | Reclaimable | Cache Free |
|---|---|---|---|---|---|---|---|---|
| 1 | SVT1 | 8 | 0 | Y | 1 222 892 | 836 881 | 679 175 | 386 011 |
| 2 | SVT2 | 8 | 0 | N | 76 149 | 51 314 | 6 480 | 24 835 |
| 3 | SVT3 | 8 | 0 | Y | 64 269 | 45 308 | 12 911 | 18 961 |
| 4 | SVT6 | 8 | 0 | Y | 1 222 892 | 836 881 | 0 | 386 011 |
| 5 | | | | | | | | |

2. Double click the row displaying the record you want to zoom to in another object.

   This indicates you want to display this record in another object.

   **Note:** You can also click the row to highlight it, then click the Open Zoom icon ( ) in the object menu bar.

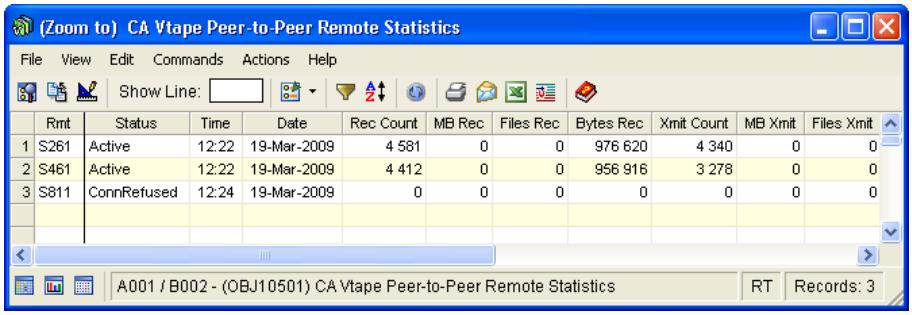
   The *Zoom list of CA Vtape Systems* dialog appears. The zoom list consists of objects related to the CA Vtape Systems object. The following is a sample of the *Zoom list of CA Vtape Systems* dialog with the CA Vtape Peer-to-Peer Statistics object selected. This zoom list allows you to select a CA Vtape object and open a window that displays only the data associated with the selected system.




3. Click the CA Vtape Peer-to-Peer Remote Statistics object in the Zoom list of CA Vtape Systems dialog.

   The (Zoom to) CA Vtape Peer-to-Peer Remote Statistics object is displayed. This object shows only information that is related to the CA Vtape system selected in Step 1.

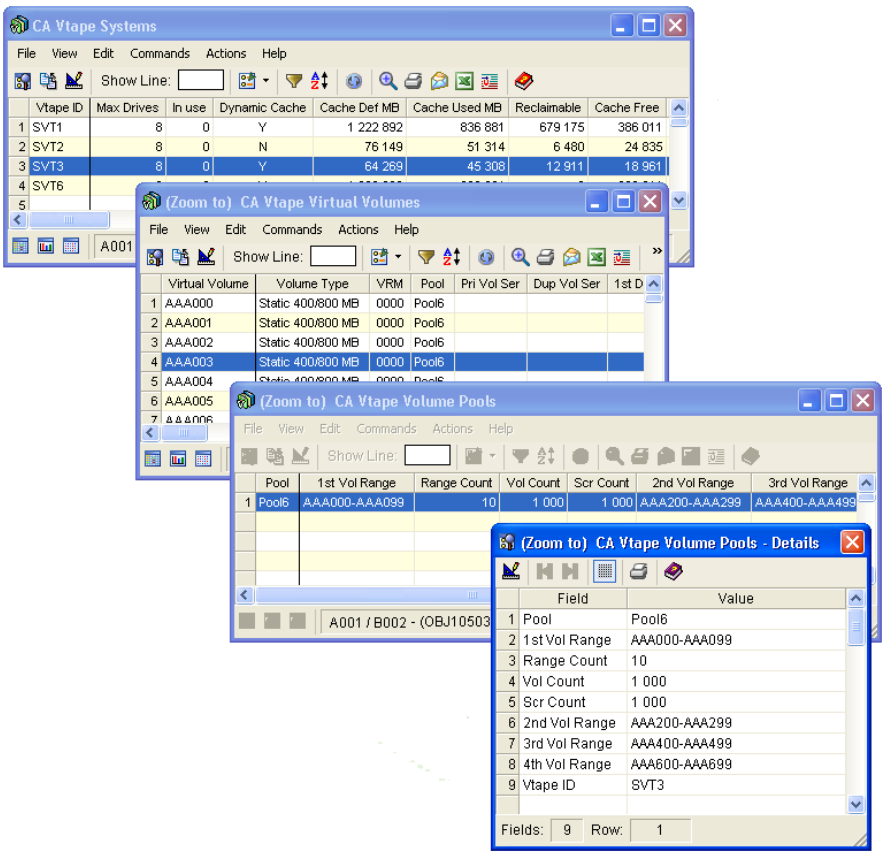
   The following is an example of the (Zoom to) CA Vtape Peer-to-Peer Remote Statistics object:



### Example of zooming and using other features

You can zoom to another object as long as the Open Zoom icon ( ) is selectable. When a *Zoom to* object is displayed you can use all the functions and options displayed on the menu bar and tool bar.

The following example shows the result of selecting system SVT3 in the CA Vtape Systems object and then zooming from the CA Vtape Systems object to the CA Vtape Virtual Volumes object, where only SVT3 Virtual Volumes are displayed. Then the Virtual Volume AAA003 is selected in the (Zoom to) CA Vtape Virtual Volumes object and then we zoomed to the CA Vtape Volume Pools object. Next Pool6 is selected in the (Zoom to) CA Vtape Volume Pools object and the View, Details menu option is selected to display the details of Pool6 in a separate Details window.



# Group Status Object

The Group Status object displays all of the status information about the CA Vtape Groups. The Group Status object is useful for monitoring the status of Groups. It provides an overview of the status of the Groups.

## Working with the Group Status Object

The Group Status object contains all the status information about the CA Vtape Groups. The Group Status object is useful for monitoring the status of Groups. You can also perform actions on groups using this object's Action options.

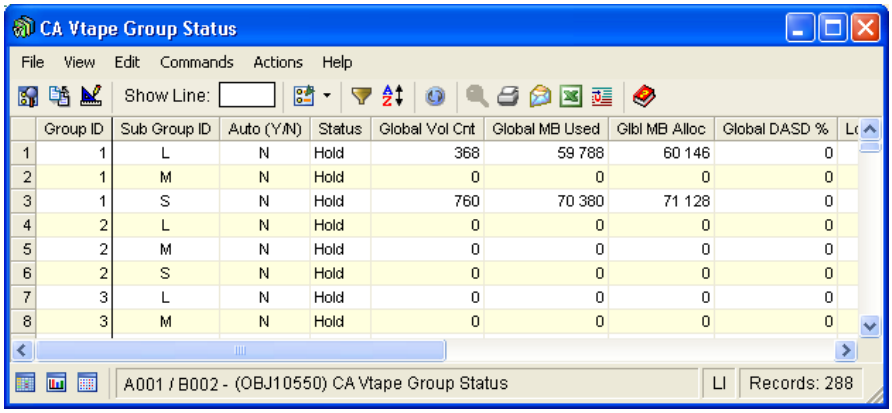
**To display Group Status activity**

1. Open the Object Tree so it is showing the CA Vtape objects as described in the section Using the Windows Client to Access the CA Vtape Objects.

   CA Vtape objects are displayed in the Object Tree.

2. Click the Group Status object in the Object Tree.

   The table view of the Systems object appears, as shown in the following sample:




**Note:** Click the Help About Object tool bar icon ( ), to display a description of the field values displayed in the columns in the Group Status object.

**Group Status Object Actions Menu**

The Actions menu option located on the Group Status object view Menu Bar provides the following options:

- Set Backstore
- Externalization

From the Set Backstore option, the following sub options are available:

- Exclude Vol
  - Group
    - Primary
    - Duplex
    - Both
  - SubGroup
    - Primary
    - Duplex
    - Both
  - All
    - Primary
    - Duplex
    - Both

  The following options are available for Group, Subgroup, or All:

  **Primary**

  Releases the physical tape last used for primary externalization, directing the next externalization to use a new scratch tape. This action will be performed for the selected Group, Subgroup, or All Groups, based on the chosen scope.

  **Duplex**

  Releases the physical tape last used for duplex externalization, directing the next externalization to use a new scratch tape. This action will be performed for the selected Group, Subgroup, or All Groups, based on the chosen scope.

  **Both**

  Releases the physical tape last used for both primary and duplex externalizations, directing the next externalization to use a new scratch tape. This action will be performed for the selected Group, Subgroup, or All Groups, based on the chosen scope.

- Automation

  You can select one of the following Automation options:

  **Group On**

  Temporarily activates automation for the subgroups within a selected group. Automated subgroups are dynamically held or released based on cache utilization thresholds established through CA Vtape parmlib attributes.

  **Subgroup On**

  Temporarily activates automation for the selected group/subgroup. Automated subgroups are dynamically held or released based on cache utilization thresholds established through CA Vtape parmlib attributes.

  **All On**

  Temporarily activates automation for all group/subgroups. Automated subgroups are dynamically held or released based on cache utilization thresholds established through CA Vtape parmlib attributes.

- Hold

  You can select one of the following Hold options:

  **Group**

  Holds all the externalization group/subgroup queues associated with the selected group.

  **Subgroup**

  Holds the externalization subgroup queue associated with the selected group/subgroup.

  **All**

  Holds all the externalization group/subgroup queues.

  **Note:** These actions will not affect automated group/subgroups. To affect automated group and subgroup combinations, use the Set Backstore -Hold actions.

- -Hold

  You can select one of the following -Hold options:

  **Group**

  Temporarily inactivates automation for all subgroups associated with the selected group, then hold all of the subgroup externalization queues.

  **Subgroup**

  Temporarily inactivates automation for the specified group/subgroup then hold the subgroup externalization queues.

**All**

Temporarily inactivates automation for all the automated groups, then hold ALL externalization queues, even for groups that are not automated.

**Note:** The -Hold action will only temporarily inactivate automation for those groups/subgroups that were automated, but the hold action will be applied to all groups that meet the selected criteria.

- Release

  You can select one of the following Release options:

  **Group**

  Releases all the externalization group/subgroup queues associated with the selected group.

  **Subgroup**

  Releases the externalization subgroup queue associated with the selected group/subgroup.

  **All**

  Releases all the externalization group/subgroup queues.

  **Note:** These actions will not affect automated group/subgroups. To affect automated group and subgroup combinations, use the Set Backstore -Release actions.

- -Release

  You can select one of the following -Release options:

  **Group**

  Temporarily inactivates automation for all subgroups associated with the selected group, then release all of the subgroup externalization queues.

  **Subgroup**

  Temporarily inactivates automation for the specified group/subgroup then release the subgroup externalization queues.

  **All**

  Temporarily inactivates automation for all the automated groups, then release ALL externalization queues, even for groups that are not automated.

  **Note:** The -Release action will only temporarily inactivate automation for those groups/subgroups that were automated, but the release action will be applied to all groups that meet the selected criteria.

- Reset

  You can select one of the following Reset options:

  **Group**

  Restores the automation status for all subgroups associated with the selected group, based on CA Vtape parmlib definitions.

  **Subgroup**

  Restores the automation status for the specified group/subgroup combination, based on CA Vtape parmlib definitions.

  **All**

  Restores the automation status for all group/subgroup combinations, based on CA Vtape parmlib definitions.

Externalization has the following options:

**Start**

Begins externalization of the selected group/subgroup combinations.

**Stop**

Stops externalization of the selected group/subgroup combinations.

# Virtual Device Activity Object

The Virtual Device Activity object is a real time view of the Virtual tape devices being used by CA Vtape.

The Virtual Device Activity object is useful for monitoring Virtual Device activity. It provides an overview of the activity of Virtual Devices.

## Working with the Virtual Device Activity Object

The Virtual Device Activity object is a real time view of the Virtual tape devices being used by CA Vtape. The Virtual Device Activity object is useful for monitoring the status of Virtual tape devices. You can also perform actions on virtual devices using this object's Action options.

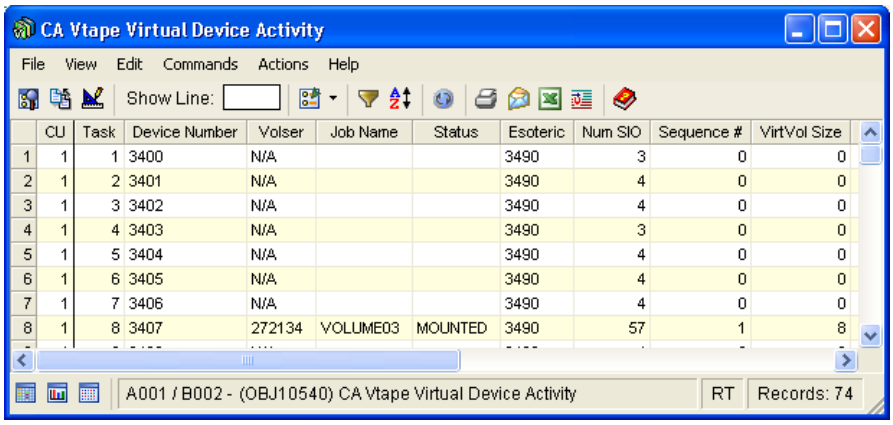
**To display Group Status activity**

1. Open the Object Tree so it is showing the CA Vtape objects as described in the section Using the Windows Client to Access the CA Vtape Objects.

   CA Vtape objects are displayed in the Object Tree.

2. Click the Virtual Device Activity object in the Object Tree.

   The table view of the Virtual Device Activity object appears, as shown in the following sample:




**Note:** Click the Help About Object tool bar icon ( ), to display a description of the field values displayed in the columns in the Virtual Device Activity object.

**Virtual Device Activity Object Actions Menu**

The following actions are available from the Actions menu option located on the Virtual Device Activity object view Menu Bar:

**Mount VTU**

The MOUNT command will re-mount the previously mounted virtual volume and the recall will be re-initiated. There are a few instances when a mount pending condition arises and the SVTSVTU task does not initiate the mount, that is, CA Vtape is forced down while a recall from a physical tape is taking place. When CA Vtape is restarted the virtual device associated with the recall will be kept active with a mount pending condition. The MOUNT command will re-mount the previously mounted virtual volume and the recall will be re-initiated.

**Restart Unit**

Emulates the Power OFF/Power ON of a real tape device. It stops the activity executing in the specified Virtual Device, terminates the subtask and restarts it.

**Restart CU**

Emulates the Power OFF/Power ON of a real tape control unit. It stops all Virtual Device activity for the specified Virtual Control Unit, shuts down the corresponding SVTSAS address space and automatically starts it again.

**MIH Clear**

The following options are available from MIH Clear:

**No Dump**

Conditionally turns off the device busy bit so that IBM's Missing Interrupt Handler (MIH) can initiate recovery action for a Virtual Device. You must issue the command once for each pending I/O against the Virtual Device. If there are five pending I/Os, you need to issue the command five times. Because there is no quick way of determining the number of pending I/Os waiting on a device, you should not issue the command until the SVT*n*R3424E message is issued.

**Dump**

Same as No Dump, however this action will also initiate a dump of the related areas for diagnostic purposes.

## Backstore Activity Object

The Backstore Activity object contains all the information about any active CA Vtape Backstore tasks.

The Backstore Activity object is useful for monitoring Backstore tasks. It provides an overview of the status of the tasks.

### Working with the Backstore Activity Object

You can display the Backstore Activity object to view information about your Backstore activity. You can also perform Backstore actions using this object's Action options.

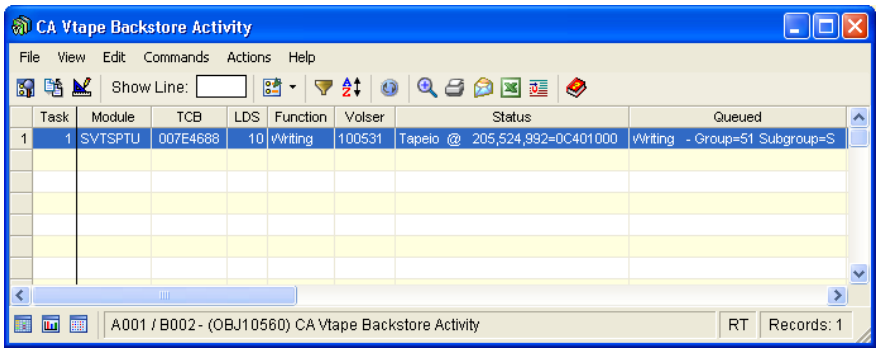
**To display Backstore activity**

1. Open the Object Tree so it is showing the CA Vtape objects as described in the section Using the Windows Client to Access the CA Vtape Objects.

   CA Vtape objects are displayed in the Object Tree.

2. Click the Backstore Activity object in the Object Tree.

   The table view of the Backstore Activity object appears, as shown in the following sample:




**Note:** Click the Help About Object tool bar icon ( ), to display a description of the field values displayed in the columns in the Backstore Activity object.

**Backstore Activity Object Actions Menu**

The following actions are available from the Actions menu option located on the Backstore Activity object view Menu Bar:

**Set HSOPEN**

This command activates or deactivates the high-speed open option used by CA Vtape for externalizing or recalling virtual volumes to or from physical backstore files.

Virtual volumes are saved as files and stacked onto physical cartridges. Modern 10 GB and 20 GB cartridge devices can hold large numbers of these physical files. Open processing performed by the operating system normally positions to a relative file by issuing the forward space file channel command. This can result in significant delays as the relative position of a file increases (files near the front of the tape can be accessed quickly while files near the end of the tape take much longer). Applications can provide the block ID for open and this can significantly reduce the time to position to a specific file.

In order to use the high-speed open option CA Vtape records block IDs in the owner field of the catalog entry for the backstore files it creates on physical cartridges.

**Note:** Only the backstore files used by CA Vtape (that is, HLQ.VVE.V*nnnnnn*.PRIMARY/DUPLEX) are affected by the high-speed open option. Catalog entries for the user data sets written onto virtual volumes are not affected in any way by this option.

When the high-speed open option is activated, CA Vtape uses the owner field to record the block id.

When the high-speed open option is deactivated, CA Vtape does not record and/or use any information in the owner field.

While most shops do not use the owner field of the catalog, some shops may have other requirements which may prevent them from allowing CA Vtape to this field in this manner. By activating or deactivating the high-speed open option you can control CA Vtape's use of this field.

After it is activated or deactivated the high-speed open option remains in effect across IPLs until specifically deactivated or activated. In multi-system CA Vtape configurations, the high-speed open option must be activated or deactivated on each individual system.

You can select one of the following options from Set HSOPEN:

**Set HSOPEN on**

Issue this command to activate high speed open.

**Set HSOPEN off**

Issue this command to inactivate high speed open.

**Set IDRC**

This command activates and deactivates the IDRC support. DEFAULT is the system default as specified in SYS1.PARMLIB(DEVSUP*xx*).

You can select one of the following options from Set IDRC:

**Set IDRC on**

Activates IDRC support.

**Set IDRC off**

Inactivates IDRC support.

**Set IDRC default**

Sets IDRC to the system default.

**Set Recall**

This command was created for Disaster Recovery flexibility. The default order for Recall from Backstore is from the Primary backstore data set. In a DR site it is likely the Duplex should be used, if it exists. This command allows the order to be switched at the local system (LPAR) level. The current value is displayed as the Recall order field using the SVTS STATUS command. The value is maintained across SVTS restarts.

You can select one of the following options from Set Recall:

**Set Recall PRI**

Sets recall to primary.

**Set Recall DUP**

Sets Recall to duplex.

**Set Recall TRI**

Sets Recall to triplex.

**Set Max Drives**

Issue this command to alter the number of physical drives that CA Vtape can use to perform Externalization.

Parameters for Set Max Drives are:

**Number**

2 digit number (01-99). Default is 01.

**Dequeue Virtual Volume**

Remove the selected Virtual Volume from its externalization queue.

**Check Backstore**

The CHECK BACKSTORE command checks the externalization queues looking for any virtual volume requiring externalization. The queues are browsed starting with GROUP=01 SUBGROUP=S and ending with GROUP=74 SUBGROUP=L. The SVTS subsystem automatically executes this command every 5 minutes, but you can issue it manually.

**Reset Queue**

Occasionally, the externalization queue may become corrupted. Some manifestations of this can be a circular queue, which will be detected and a message issued. This Reset Queue action can be used to repair most queue corruption.

**Initialize Queue**

If Reset is unable to resolve the problem, Init may be used to re-initialize the Externalization Server subgroup queues. In this case no entries are added back and the queues remain empty until the batch utility GRRJCL is run to dynamically rebuild the queues.

**Restart Backstore**

Gracefully stop all externalization tasks in progress, releasing the physical tape devices. Gracefully stop all recalls in progress, releasing the physical tape devices. Hold all externalization groups and restart SVTSAS.

**Stop PTask**

This action terminates the Backstore Engine task that matches the selected Task number.

# Virtual Volumes Object

The Virtual Volumes object displays all the information about a MVS defined volume in a CA Vtape system. This object is useful for monitoring Virtual Volumes.

## Working with the Virtual Volumes Object

The Virtual Volumes object displays all the information about a MVS defined volume in a CA Vtape system. You can display the Virtual Volumes object to view information about your Virtual Volumes activity. You can also perform actions on Virtual Volumes using this object's Action options.

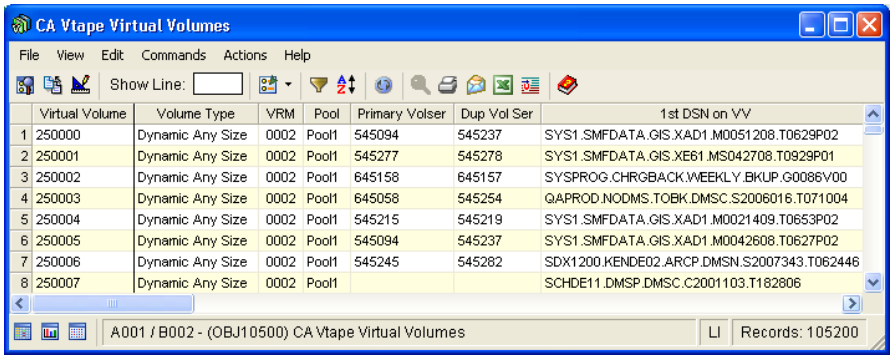
**To display Virtual Volumes information**

1. Open the Object Tree so it is showing the CA Vtape objects as described in the section Using the Windows Client to Access the CA Vtape Objects.

   CA Vtape objects are displayed in the Object Tree.

2. Click the Virtual Volumes object in the Object Tree.

   The table view of the Virtual Volumes object appears, as shown in the following sample:




| | Virtual Volume | Volume Type | VRM | Pool | Primary Volser | Dup Vol Ser | 1st DSN on VV |
|---|---|---|---|---|---|---|---|
| 1 | 250000 | Dynamic Any Size | 0002 | Pool1 | 545094 | 545237 | SYS1.SMFDATA.GIS.XAD1.M0051208.T0629P02 |
| 2 | 250001 | Dynamic Any Size | 0002 | Pool1 | 545277 | 545278 | SYS1.SMFDATA.GIS.XE61.MS042708.T0929P01 |
| 3 | 250002 | Dynamic Any Size | 0002 | Pool1 | 645158 | 645157 | SYSPROG.CHRGBACK.WEEKLY.BKUP.G0086V00 |
| 4 | 250003 | Dynamic Any Size | 0002 | Pool1 | 645058 | 545254 | QAPROD.NODMS.TOBK.DMSC.S2006016.T071004 |
| 5 | 250004 | Dynamic Any Size | 0002 | Pool1 | 545215 | 545219 | SYS1.SMFDATA.GIS.XAD1.M0021409.T0653P02 |
| 6 | 250005 | Dynamic Any Size | 0002 | Pool1 | 545094 | 545237 | SYS1.SMFDATA.GIS.XAD1.M0042608.T0627P02 |
| 7 | 250006 | Dynamic Any Size | 0002 | Pool1 | 545245 | 545282 | SDX1200.KENDE02.ARCP.DMSN.S2007343.T062446 |
| 8 | 250007 | Dynamic Any Size | 0002 | Pool1 | | | SCHDE11.DMSP.DMSC.C2001103.T182806 |

**Note:** Click the Help About Object tool bar icon ( ), to display a description of the field values displayed in the columns in the Virtual Volumes object.

### Virtual Volumes Object Actions Menu

The following actions are available from the Actions menu option located on the Virtual Volumes object view Menu Bar:

**Add Volumes**

Adds a Virtual Volume range to CA Vtape. These are the actual tape volumes reserved in the tape management system for CA Vtape to use. A range can be from 100 volumes to 100,000 volumes. You will be prompted to provide the starting and ending volume serial numbers of the range.

Parameters are as follows:

**Strt Vol Range**

Beginning Virtual Volume of the range to be added. All 6 characters of the volume serial are required, and at least the final 2 characters should be 00 depending on the number of volumes to be added.

**End Vol Range**

Ending Virtual Volume of the range to be added. All 6 characters of the volume serial are required, and at least the final 2 characters should be 99 depending on the number of volumes to be added.

**Delete Volumes**

Deletes the specified range of Virtual Volumes from CA Vtape. The range can vary in size from 100 to 100,000 volumes. All of the Virtual Volumes in the range are validated to be in scratch status and portions of the range may not be deleted if not all volumes are scratched.

**WP On VVP**

Activates write protection for the Virtual Volume segment identified by the selected Virtual Volume. All 100 of the volumes associated with this segment will be write protected.

**WP Off VVP**

Inactivates write protection for the Virtual Volume segment identified by the selected Virtual Volume. All 100 of the volumes associated with this segment will have write protection removed.

**Deq Virt Volume**

Looks for any Group Write Requests (GRRs) matching the selected Virtual Volume and dequeues those GRRs.

**WP On Virt Vol**

Activates write protection for the selected Virtual Volume.

**WP Off Virt Vol**

Inactivates write protection for the selected Virtual Volume.

**Start Recall**

Initiates recall processing for the virtual volume selected. This should be differentiated from Recall VVO in that this process will cause the Virtual Volume to be recalled into cache even if a copy already exists.

**Stop Recall**

Stops recall processing for the selected Virtual Volume recall.

# Virtual Volume Data Sets Object

The Virtual Volume Data Sets object displays all the information about data sets on the Virtual Volume. This object is useful for monitoring Virtual Volume data sets.

## Working with the Virtual Volume Data Sets Object

The Virtual Volume Data Sets object displays all the information about data sets on the Virtual Volume.

You can display the Virtual Volume Data Sets object to view information about your Virtual Volume data sets. You can also perform actions on data sets using this object's Action options.

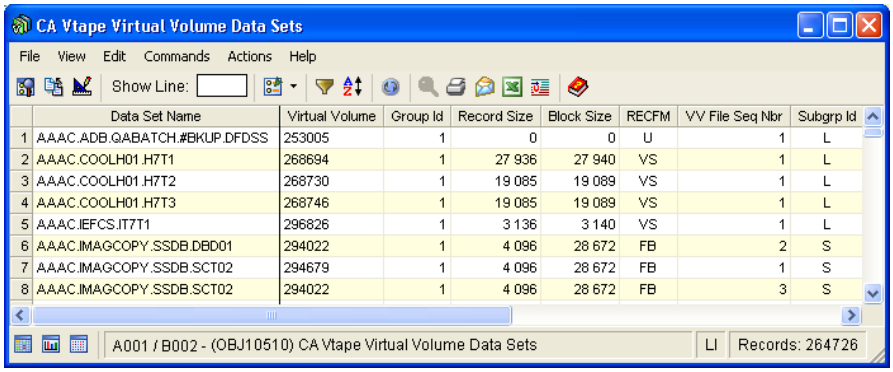
**To display Virtual Volume data sets**

1. Open the Object Tree so it is showing the CA Vtape objects as described in the section Using the Windows Client to Access the CA Vtape Objects.

   CA Vtape objects are displayed in the Object Tree.

2. Click the Virtual Volume Data Sets object in the Object Tree.

   The table view of the Virtual Volume Data Sets object appears, as shown in the following sample:




| | Data Set Name | Virtual Volume | Group Id | Record Size | Block Size | RECFM | VV File Seq Nbr | Subgrp Id |
|---|---|---|---|---|---|---|---|---|
| 1 | AAAC.ADB.QABATCH.#BKUP.DFDSS | 253005 | 1 | 0 | 0 | U | 1 | L |
| 2 | AAAC.COOLH01.H7T1 | 268694 | 1 | 27 936 | 27 940 | VS | 1 | L |
| 3 | AAAC.COOLH01.H7T2 | 268730 | 1 | 19 085 | 19 089 | VS | 1 | L |
| 4 | AAAC.COOLH01.H7T3 | 268746 | 1 | 19 085 | 19 089 | VS | 1 | L |
| 5 | AAAC.IEFCS.IT7T1 | 296826 | 1 | 3 136 | 3 140 | VS | 1 | L |
| 6 | AAAC.IMAGCOPY.SSDB.DBD01 | 294022 | 1 | 4 096 | 28 672 | FB | 2 | S |
| 7 | AAAC.IMAGCOPY.SSDB.SCT02 | 294679 | 1 | 4 096 | 28 672 | FB | 1 | S |
| 8 | AAAC.IMAGCOPY.SSDB.SCT02 | 294022 | 1 | 4 096 | 28 672 | FB | 3 | S |

**Note:** Click the Help About Object tool bar icon ( ), to display a description of the field values displayed in the columns in the Virtual Volume Data Sets object.

**Virtual Volume Data Sets Object Actions Menu**

The following actions are available from the Actions menu option located on the Virtual Volume Data Sets object view Menu Bar:

**Deq Virt Volume**

Looks for any Group Write Requests (GRRs) matching the selected Virtual Volume and dequeues those GRRs.

**WP On Virt Vol**

Activates write protection for the selected Virtual Volume.

**WP Off Virt Vol**

Inactivates write protection for the selected Virtual Volume.

**Start Recall**

Initiates recall processing for the Virtual Volume selected. This should be differentiated from Recall VVDO in that this process will cause the Virtual Volume to be recalled into cache even if a copy already exists in cache.

**Stop Recall**

Stops recall processing for the selected Virtual Volume recall.

# Externalization Queue Object

The Externalization Queue object contains all the information about the CA Vtape Externalization Queue. This object is useful for monitoring Externalization Queues.

## Working with the Externalization Queue Object

The Externalization Queue object displays all the information about your CA Vtape Externalization Queues.

You can display the Externalization Queue object to view information about your Externalization Queues. You can also perform actions on Externalization Queues using this object's Action options.

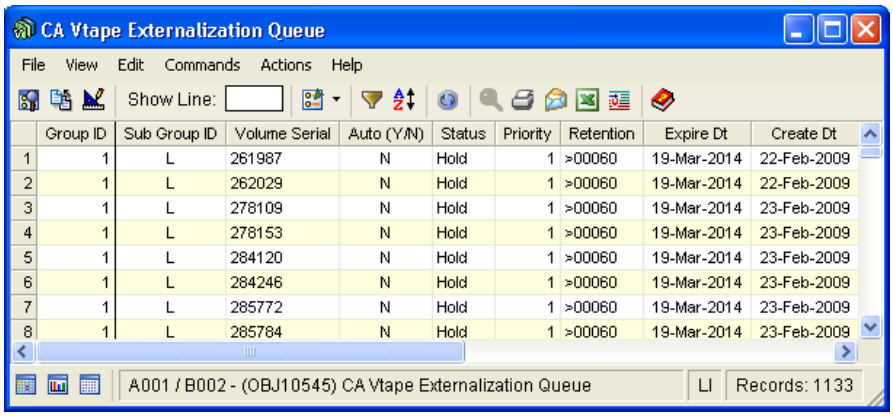
**To display the Externalization Queue object**

1. Open the Object Tree so it is showing the CA Vtape objects as described in the section Using the Windows Client to Access the CA Vtape Objects.

   CA Vtape objects are displayed in the Object Tree.

2. Click the Externalization Queue object in the Object Tree.

   The table view of the Externalization Queue object appears, as shown in the following sample:




**Note:** Click the Help About Object tool bar icon ( ), to display a description of the field values displayed in the columns in the Externalization Queue object.

**Externalization Queue Object Actions Menu**

The Actions menu option located on the Externalization Queue object view Menu Bar provides the following options:

- Set Backstore
- Externalization
- Dequeue Virt Vol

From the Set Backstore menu option, the following sub options are available:

- Exclude Vol
  - Group
    - Primary
    - Duplex
    - Both
  - SubGroup
    - Primary
    - Duplex
    - Both

- All
  - Primary
  - Duplex
  - Both

The following options are available for Group, Subgroup, or All:

**Primary**

Releases the physical tape last used for primary externalization, directing the next externalization to use a new scratch tape. This action will be performed for the selected Group, Subgroup, or All Groups, based on the chosen scope.

**Duplex**

Releases the physical tape last used for duplex externalization, directing the next externalization to use a new scratch tape. This action will be performed for the selected Group, Subgroup, or All Groups, based on the chosen scope.

**Both**

Releases the physical tape last used for both primary and duplex externalizations, directing the next externalization to use a new scratch tape. This action will be performed for the selected Group, Subgroup, or All Groups, based on the chosen scope.

- Automation

You can select one of the following Automation options:

**Group On**

Temporarily activates automation for the subgroups within a selected group. Automated subgroups are dynamically held or released based on cache utilization thresholds established through CA Vtape parmlib attributes.

**Subgroup On**

Temporarily activates automation for the selected group/subgroup. Automated subgroups are dynamically held or released based on cache utilization thresholds established through CA Vtape parmlib attributes.

**All On**

Temporarily activates automation for all group/subgroups. Automated subgroups are dynamically held or released based on cache utilization thresholds established through CA Vtape parmlib attributes.

- Hold

  You can select one of the following Hold options:

  **Group**

  Holds all the externalization group/subgroup queues associated with the selected group.

  **Subgroup**

  Holds the externalization subgroup queue associated with the selected group/subgroup.

  **All**

  Holds all the externalization group/subgroup queues.

  **Note:** These actions will not affect automated group/subgroups. To affect automated group and subgroup combinations, use the Set Backstore -Hold actions.

- -Hold

  You can select one of the following -Hold options:

  **Group**

  Temporarily inactivates automation for all subgroups associated with the selected group, then hold all of the subgroup externalization queues.

  **Subgroup**

  Temporarily inactivates automation for the specified group/subgroup then hold the subgroup externalization queues.

  **All**

  Temporarily inactivates automation for all automated groups, then hold ALL externalization queues, even for groups that are not automated.

  **Note:** The -Hold action will only temporarily inactivate automation for those groups/subgroups that were automated, but the hold action will be applied to all groups that meet the selected criteria.

- Release

  You can select one of the following Release options:

  **Group**

  Releases all the externalization group/subgroup queues associated with the selected group.

  **Subgroup**

  Releases the externalization subgroup queue associated with the selected group/subgroup.

**All**

Releases all the externalization group/subgroup queues.

**Note:** These actions will not affect automated group/subgroups. To affect automated group and subgroup combinations, use the Set Backstore -Release actions.

- -Release

  You can select one of the following -Release options:

  **Group**

  Temporarily inactivates automation for all subgroups associated with the selected group, then release all of the subgroup externalization queues.

  **Subgroup**

  Temporarily inactivates automation for the specified group/subgroup then release the subgroup externalization queues.

  **All**

  Temporarily inactivates automation for all automated groups, then release ALL externalization queues, even for groups that are not automated.

  **Note:** The -Release action will only temporarily inactivate automation for those groups/subgroups that were automated, but the release action will be applied to all groups that meet the selected criteria.

- Reset

  You can select one of the following Reset options:

  **Group**

  Restores the automation status for all subgroups associated with the selected group, based on CA Vtape parmlib definitions.

  **Subgroup**

  Restores the automation status for the specified group/subgroup combination, based on CA Vtape parmlib definitions.

  **All**

  Restores the automation status for all group/subgroup combinations, based on CA Vtape parmlib definitions.

Externalization has the following options:

**Start**

Begin externalization of the selected group/subgroup combinations.

**Stop**

Stop externalization of the selected group/subgroup combinations.

Dequeue Virtual Volume has no sub options. When you click this option the selected Virtual Volume is removed from its externalization queue.

# Parameters Object

The CA Vtape Parameters object contains all of the setting information for each CA Vtape parameter.

## Working with the Parameters Object

The Parameters object contains all of your settings for each CA Vtape parameter.

You can display the Parameters object to view your CA Vtape parameter settings. You can also perform Refresh actions using this object's Action options.

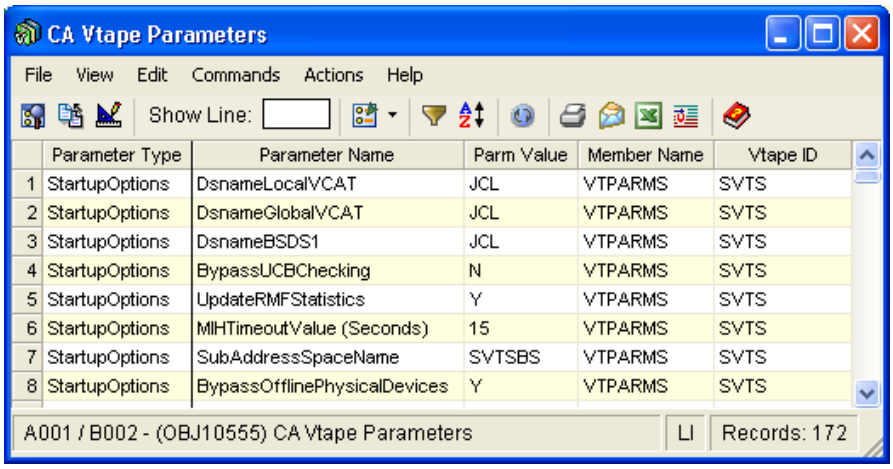
**To display your CA Vtape parameters settings**

1. Open the Object Tree so it is showing the CA Vtape objects as described in the section Using the Windows Client to Access the CA Vtape Objects.

   CA Vtape objects are displayed in the Object Tree.

2. Click the Parameters object in the Object Tree.

   The table view of the Parameters object appears, as shown in the following sample:



**Note:** Click the Help About Object tool bar icon (  ), to display a description of the field values displayed in the columns in the Parameters object.

**Parameters Object Actions Menu**

The following Refresh actions are available from the Actions menu option located on the Parameters object view Menu Bar:

**Refresh Options**

Causes all of the Dynamic Options to be refreshed from the CA Vtape parmlib concatenation.

**Refresh Groups**

Causes the Groups to be refreshed from the CA Vtape parmlib concatenation.

**Refresh Filters**

Causes both the Dataclass and Data Set filter sets to be refreshed from the CA Vtape parmlib concatenation.

**Refresh Pools**

Causes the CA Vtape Volume Pool definitions to be refreshed from the CA Vtape parmlib concatenation.

**Refresh Remotes**

Causes all of the Peer-to-Peer Remote options to be refreshed from the CA Vtape parmlib concatenation.

## Group Definitions Object

The Group Definition object displays all the definition information about CA Vtape Groups.

### Working with the Group Definitions Object

The Group Definitions object displays all the definition information about CA Vtape Groups. You can display the Group Definitions object to view your CA Vtape Group definitions. There are no actions related to the Group Definitions object.

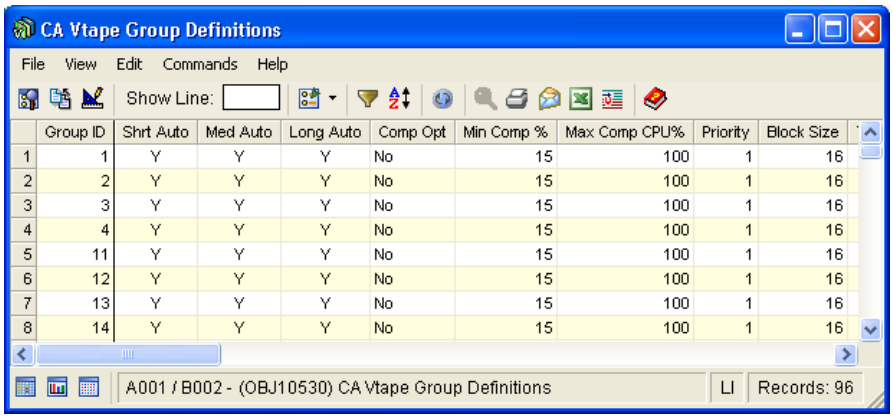
**To display Group Definitions**

1. Open the Object Tree so it is showing the CA Vtape objects as described in the section Using the Windows Client to Access the CA Vtape Objects.

   CA Vtape objects are displayed in the Object Tree.

2. Click the Group Definitions object in the Object Tree.

   The table view of the Group Definitions object appears, as shown in the following sample:




| | Group ID | Shrt Auto | Med Auto | Long Auto | Comp Opt | Min Comp % | Max Comp CPU% | Priority | Block Size |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | Y | Y | Y | No | 15 | 100 | 1 | 16 |
| 2 | 2 | Y | Y | Y | No | 15 | 100 | 1 | 16 |
| 3 | 3 | Y | Y | Y | No | 15 | 100 | 1 | 16 |
| 4 | 4 | Y | Y | Y | No | 15 | 100 | 1 | 16 |
| 5 | 11 | Y | Y | Y | No | 15 | 100 | 1 | 16 |
| 6 | 12 | Y | Y | Y | No | 15 | 100 | 1 | 16 |
| 7 | 13 | Y | Y | Y | No | 15 | 100 | 1 | 16 |
| 8 | 14 | Y | Y | Y | No | 15 | 100 | 1 | 16 |

**Note:** Click the Help About Object tool bar icon ( ), to display a description of the field values displayed in the columns in the Group Definitions object.

## Peer-to-Peer Remote Statistics Object

The Peer-to-Peer Remote Statistics object displays statistics for each Peer-to-Peer connection between this CA Vtape and its defined remotes.

### Working with the Peer-to-Peer Remote Statistics Object

The Peer-to-Peer Remote Statistics object displays statistics for each Peer-to-Peer connection between this CA Vtape and its defined remotes. You can display the Peer-to-Peer Remote Statistics object to view Peer-to-Peer remote statistics. You can also perform Refresh actions using this object's Action options.

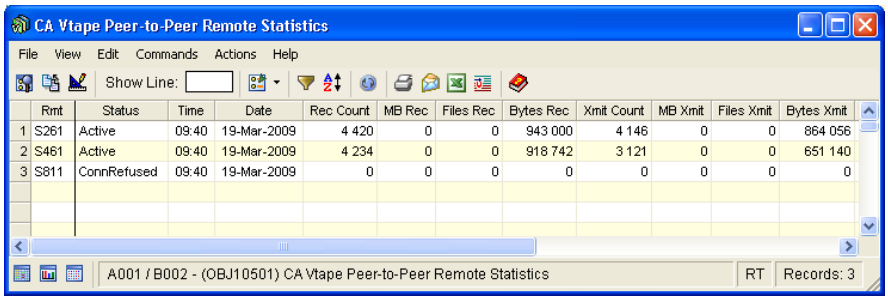
**To display Peer-to-Peer remote statistics**

1. Open the Object Tree so it is showing the CA Vtape objects as described in the section Using the Windows Client to Access the CA Vtape Objects.

   CA Vtape objects are displayed in the Object Tree.

2. Click the Peer-to-Peer Remote Statistics object in the Object Tree.

   The table view of the Peer-to-Peer Remote Statistics object appears, as shown in the following sample:




**Note:** Click the Help About Object tool bar icon ( ), to display a description of the field values displayed in the columns in the Peer-to-Peer Remote Statistics object.

**Peer-to-Peer Remote Statistics Actions Menu**

The following Refresh action is available from the Actions menu option located on the Peer-to-Peer Remote Statistics object view Menu Bar:

**Refresh Remotes**

Causes all of the Peer-to-Peer Remote options to be refreshed from the CA Vtape parmlib concatenation.

## Peer-to-Peer Tasks Object

The Peer-to-Peer Tasks object displays information on each Peer-to-Peer task active in this CA Vtape system.

### Working with the Peer-to-Peer Tasks Object

The Peer-to-Peer Tasks object displays statistics for each Peer-to-Peer connection between this CA Vtape and its defined remotes. You can display the Peer-to-Peer Tasks object to view these Peer-to-Peer statistics. You can also perform Refresh actions using this object's Action options.

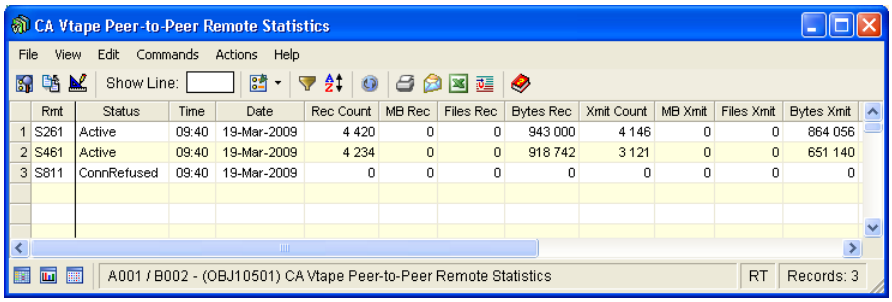
**To display Peer-to-Peer remote statistics**

1. Open the Object Tree so it is showing the CA Vtape objects as described in the section Using the Windows Client to Access the CA Vtape Objects.

   CA Vtape objects are displayed in the Object Tree.

2. Click the Peer-to-Peer Tasks object in the Object Tree.

   The table view of the Peer-to-Peer Tasks object appears, as shown in the following sample:




**Note:** Click the Help About Object tool bar icon ( ), to display a description of the field values displayed in the columns in the Peer-to-Peer Tasks object.

**Peer-to-Peer Tasks Actions Menu**

The following Refresh action is available from the Actions menu option located on the Peer-to-Peer Tasks object view Menu Bar:

**Refresh Remotes**

Causes all of the Peer-to-Peer Remote options to be refreshed from the CA Vtape parmlib concatenation.

# Volume Pools Object

The Volume Pools object displays information about every Virtual Volume Pool defined to this CA Vtape system.

## Working with the Volume Pools Object

The Volume Pools object displays information about every Virtual Volume Pool defined to this CA Vtape system. You can display the Volume Pools object to view Virtual Volume Pool information. You can also perform Refresh actions using this object's Action options.

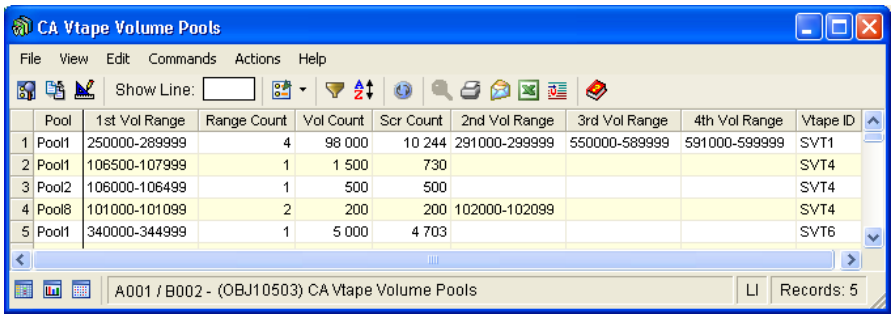
**To display Virtual Volume Pools information**

1. Open the Object Tree so it is showing the CA Vtape objects as described in the section Using the Windows Client to Access the CA Vtape Objects.

   CA Vtape objects are displayed in the Object Tree.

2. Click the Volume Pools object in the Object Tree.

   The table view of the Volume Pools object appears, as shown in the following sample:




**Note:** Click the Help About Object tool bar icon ( ), to display a description of the field values displayed in the columns in the Volume Pools object.

**Volume Pools Actions Menu**

The following Refresh action is available from the Actions menu option located on the Volume Pools object view Menu Bar:

**Refresh Pools**

Causes the Virtual Volume Pool definitions to be refreshed from the CA Vtape parmlib concatenation.

# Free Queue Object

The Free Queue object displays Virtual Volume Free Queue information in this CA Vtape system.

## Working with the Free Queue Object

The Free Queue object displays information on the Virtual Volume Free Queue in the CA Vtape system. You can display the Free Queue object to view Virtual Volume Free Queue information. You can also perform Refresh actions using this object's Action options.

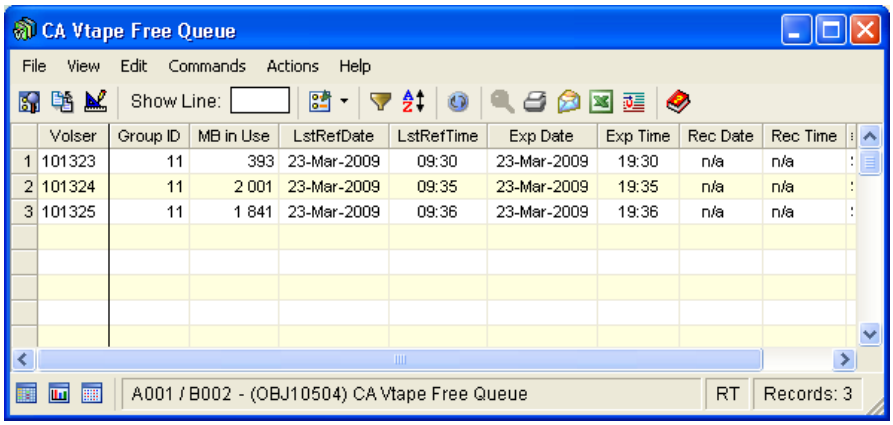
**To display Virtual Volume Free Queue information**

1. Open the Object Tree so it is showing the CA Vtape objects as described in the section Using the Windows Client to Access the CA Vtape Objects.

   CA Vtape objects are displayed in the Object Tree.

2. Click the Free Queue object in the Object Tree.

   The table view of the Free Queue object appears, as shown in the following sample:




**Note:** Click the Help About Object tool bar icon ( ), to display a description of the field values displayed in the columns in the Free Queue object.

**Free Queue Actions Menu**

The following Refresh action is available from the Actions menu option located on the Free Queue object view Menu Bar:

**Reset Free Queue**

This action causes all the Free Queue to be rebuilt.

## Data Set Filter Lists Object

The Data Set Filter List object displays all of the Data Set Filters that direct allocations to CA Vtape Virtual Devices.

### Working with the Data Set Filter Lists Object

The Data Set Filter Lists object displays all of the data set filters that direct allocations to CA Vtape Virtual Devices. You can display the Data Set Filter List object to view data set filters information. There are no actions for this object.

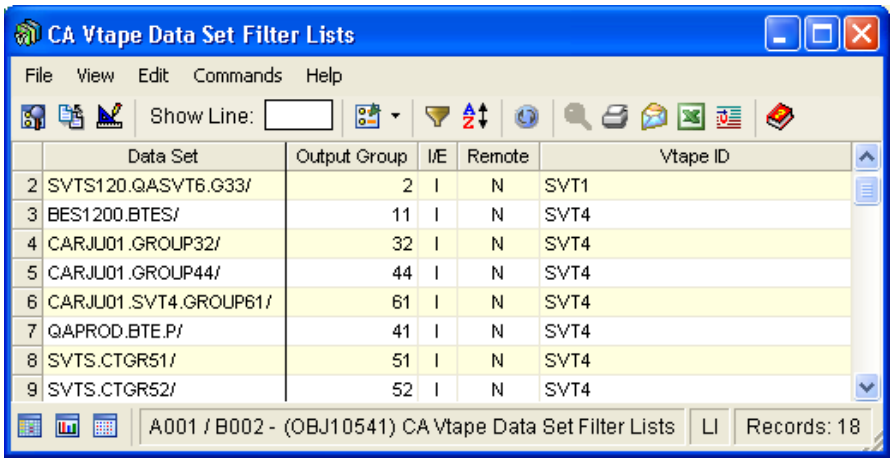
**To display data set filters information**

1. Open the Object Tree so it is showing the CA Vtape objects as described in the section Using the Windows Client to Access the CA Vtape Objects.

   CA Vtape objects are displayed in the Object Tree.

2. Click the Data Set Filter Lists object in the Object Tree.

   The table view of the Data Set Filter Lists object appears, as shown in the following sample:




**Note:** Click the Help About Object tool bar icon ( ), to display a description of the field values displayed in the columns in the Data Set Filter Lists object.

## Dataclass Filter Lists Object

The Dataclass Filter List object displays all of the Dataclass Filters that direct allocations to CA Vtape Virtual Devices.

### Working with the Dataclass Filter Lists Object

The Dataclass Filter Lists object displays all of the dataclass filters that direct allocations to CA Vtape Virtual Devices. You can display the object to view dataclass filters information. There are no actions for this object.

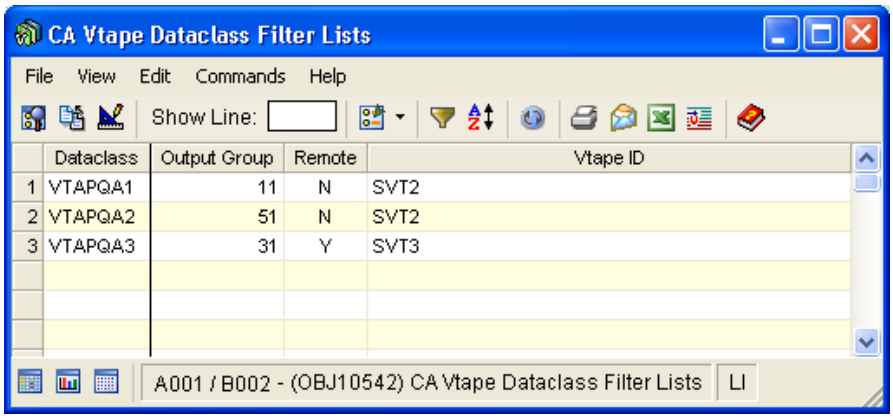
**To display data class filter lists information**

1. Open the Object Tree so it is showing the CA Vtape objects as described in the section Using the Windows Client to Access the CA Vtape Objects.

   CA Vtape objects are displayed in the Object Tree.

2. Click the Dataclass Filter Lists object in the Object Tree.

   The table view of the Dataclass Filter Lists object appears, as shown in the following sample:




**Note:** Click the Help About Object tool bar icon ( ), to display a description of the field values displayed in the columns in the Dataclass Filter Lists object.

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