PATHWORKS for VMS
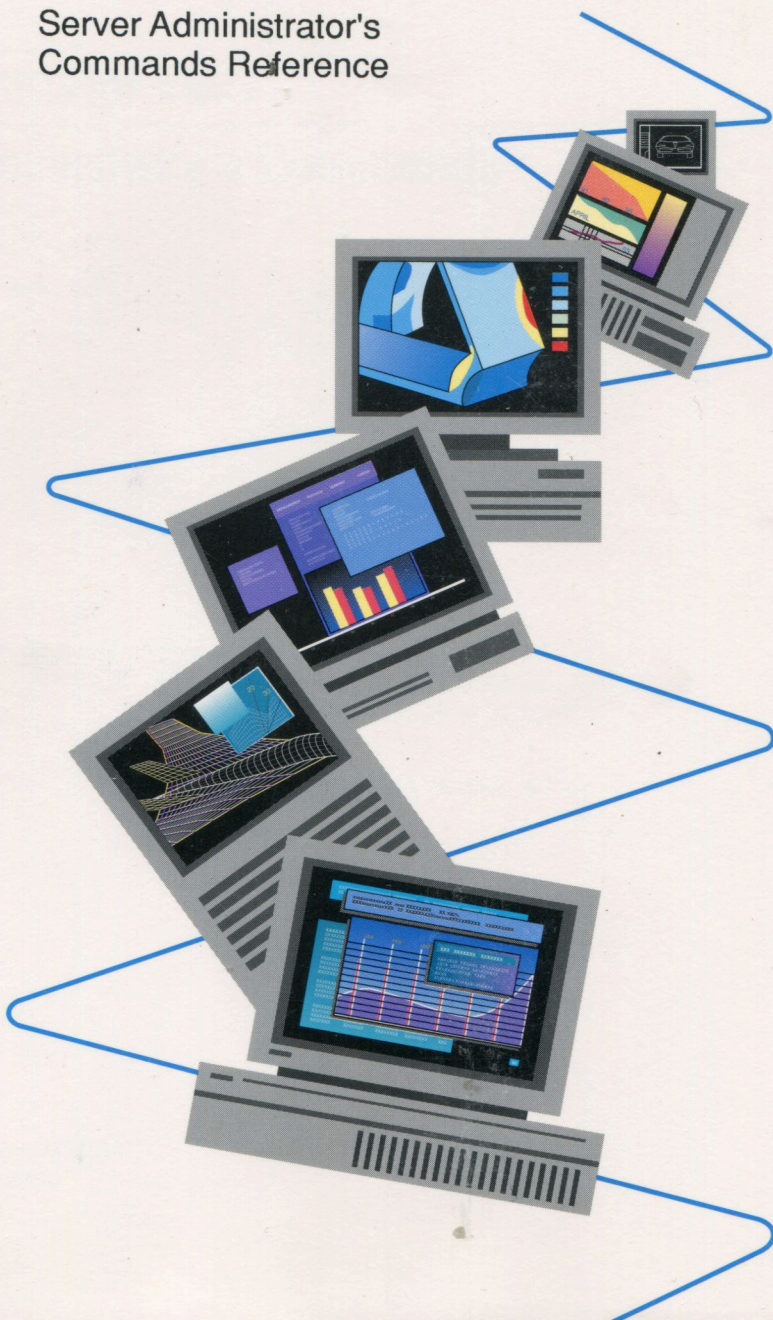
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Server Administrator's
Commands Reference

PATHWORKS for VMS

Server Administrator's Commands Reference

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About This Manual

Purpose

This manual describes:

- PCSA Manager commands

- PCDISK commands

- LAST control program commands

Audience

This manual is written for advanced users and system administrators who have privileges on VMS servers.

Organization

The following table can help you find information in this manual.

Chapter 1   Describes the PCSA Manager commands

Chapter 2   Describes the PCDISK commands

Chapter 3   Describes the ESS$LASTCP commands

Conventions Used

This manual uses the following conventions:

Convention	Meaning
Ctrl/x	While you hold down the Ctrl key, press another key or a pointing device button.
Ctrl/Alt/Del	While you hold down the Ctrl and Alt keys, press the Del key.
Esc x	Press the Esc key, release it, and then press another key or a pointing device button.
Return	Press the key that executes commands or terminates a sequence. This key is labeled Return, Enter, or ←, depending on your keyboard.
"enter"	Type all required text, spaces, and punctuation marks; then press Return, Enter, or ←, depending on your keyboard.
MB1, MB2, MB3	MB1 indicates the left mouse button, MB2 indicates the middle mouse button, and MB3 indicates the right mouse button. (The buttons can be redefined by the user.)
UPPERCASE	In VMS, DOS, and OS/2 syntax, uppercase letters indicate commands and qualifiers. You can enter commands and qualifiers in any combination of uppercase or lowercase, unless otherwise noted.
	ULTRIX commands are case-sensitive. You must enter commands in the correct case, as printed in the text.
lowercase	Lowercase letters in VMS, DOS, and OS/2 syntax indicate parameters. You must substitute a word or value, unless the parameter is optional.
teal blue type	In examples of dialog between you and the system, teal blue type indicates information that you enter. In online (Bookreader) files, this information appears in boldface.
boldface	Boldface type indicates a new term that appears in the glossary. In online (Bookreader) files, boldface indicates information you enter.
kpn	Press the specified key on the numeric keypad of your keyboard.

Convention	Meaning
two-line commands	In VMS commands, a hyphen (-) at the end of a command line indicates that the command continues to the next line. If you type the hyphen and press $\boxed{\text{Return}}$, the system displays the _$ prompt at the beginning of the next line. Continue entering the command. If you do not type the hyphen, VMS automatically wraps text to the next line.
	In ULTRIX commands, a backslash (\ ) performs the same function.
	In DOS and OS/2 commands, no character is used at the end of the first line; DOS automatically wraps text. Enter the complete command, then press $\boxed{\text{Return}}$ at the end of the command.
[ ]	Square brackets in command descriptions enclose the optional command qualifiers. Do not type the brackets when entering information enclosed in the brackets.
/	A forward slash in command descriptions indicates that a command qualifier follows.
|	A vertical bar in command descriptions indicates that you have a choice between two or more entries. Select one entry unless the entries are optional.
. . .	A horizontal ellipsis following an entry in a command line indicates that the entry or a similar entry can be repeated any number of times. An ellipsis following a file name indicates that additional parameters, values, or information can be entered.
. . .	A vertical ellipsis in an example indicates that not all the data is shown.
NOTE	Notes provide information of special importance.

Terminology

The terms "personal computer" (PC) and "PC workstation" refer to standalone systems. The term "client" refers to a PC, connnected to the network by PATHWORKS software, that can access resources on a server. A server is a system that offers services to clients.

The term "PATHWORKS" refers to PATHWORKS software. PATHWORKS is a trademark of Digital Equipment Corporation.

1
PCSA Manager

You can use the PCSA Manager commands and the PCSA Manager menu to manage the disk server, the file server, and services. This chapter describes each command, shows the command's format, and gives an example of its use. The commands are presented in alphabetical order.

To start the PCSA Manager from DCL, enter:

```
$ ADMINISTER/PCSA
PCSA_MANAGER>
```

You can abbreviate (to the smallest set of unique characters) "ADMINISTER/PCSA" by entering:

```
$ ADMIN/PC
```

The PCSA Manager prompt is displayed:

```
PCSA_MANAGER>
```

You can issue commands at the PCSA Manager prompt.

You can also issue PCSA Manager commands from DCL by typing ADMIN/PC before the command. For example, to issue the SHOW FILE_SERVER SESSIONS command from DCL, enter:

```
$ ADMIN/PC SHOW FILE_SERVER SESSIONS
```

You can also use PCSA Manager commands in VMS batch files.

Table 1–1 lists the PCSA Manager commands.

Table 1–1   PCSA MANAGER Commands

Use this command...	If you want to...
ADD GROUP	Add a group
ADD MEMBER	Add members to a group created using the ADD GROUP command

Table 1–1 (Cont.)   PCSA MANAGER Commands

Use this command...	If you want to...
ADD NODE	Add a workstation or server to the DECnet database
ADD SERVICE/DIRECTORY	Add a file service
ADD SERVICE/PRINTER	Add a print service
ADD TEMPLATE	Add a template for remote boot workstations
ADD USER	Add a PCSA user environment
ADD WORKSTATION	Add a Version 2.2 workstation to a Version 4.0 server
BROADCAST	Send messages to clients
CLOSE FILE_SERVER FILE	Close a file
CONFIG	Confirm the current configuration of the file server
CREATE DISK	Create a virtual disk
DELETE DISK	Delete a virtual disk
DENY	Deny a user access to a file or print service
DENY/GROUP	Deny a group of users access to a file or print service
DISMOUNT DISK	Dismount a virtual disk
EXIT	Exit the PCSA Manager and return to DCL
GRANT	Grant a user access to a service
GRANT/GROUP	Grant a group of users access to a service
HELP	Obtain help for the PCSA Manager commands
MENU	Use the Menu interface
MODIFY DISK	Modify the virtual disk allocation size, or file type

Table 1–1 (Cont.)   PCSA MANAGER Commands

Use this command...	If you want to...
MODIFY USER	Modify a user's AUTOUSER.BAT file
MODIFY WORKSTATION	Change the hardware address or Ethernet adapter of a workstation; or the comment in the remote boot database or the VAX adapter that services remote boot requests
MOUNT DISK	Mount a virtual disk
REMOVE CLIENT_OS	Remove a client operating system
REMOVE GROUP	Remove a group (that was created with ADD GROUP)
REMOVE MEMBER	Remove a member (that was created with ADD MEMBER) from a group
REMOVE NODE	Remove a workstation or server from the DECnet database
REMOVE SERVICE	Remove a file server directory or printer service entry from the service database
REMOVE TEMPLATE	Remove a remote boot template
REMOVE USER	Remove a user environment
REMOVE WORKSTATION	Remove the network key disk for the workstation and disable remote boot
SET DISK_SERVER CHARACTERISTICS	Change disk server characteristics
SET DISK_SERVER SERVICE	Change disk service characteristics
SET FILE_SERVER CHARACTERISTICS	Change file server characteristics
SET FILE_SERVER SERVICE	Change filer service characteristics
SHOW CLIENT_OS	List client operating systems
SHOW DISK_SERVER CHARACTERISTICS	Display disk server characteristics
SHOW DISK_SERVER CONNECTIONS	Display active disk service connections
SHOW DISK_SERVER COUNTERS	Display cache counters for disk server

Table 1–1 (Cont.)   PCSA MANAGER Commands

Use this command...	If you want to...
SHOW DISK_SERVER SERVICES	Display disk services
SHOW FILE_SERVER CHARACTERISTICS	Display file server characteristics
SHOW FILE_SERVER CONNECTIONS	Display active file service connections
SHOW FILE_SERVER COUNTERS	Display file server caching statistics
SHOW FILE_SERVER OPEN_FILES	Display open files in file and printer services
SHOW FILE_SERVER SERVICES	Display active file and print services
SHOW FILE_SERVER SERVICES/AUTHORIZED	Display authorized file and print services
SHOW FILE_SERVER SERVICES/REGISTERED	Display registered file and print services
SHOW FILE_SERVER SESSION	Display active file service sessions
SHOW FILE_SERVER STATUS	Display file server status
SHOW GROUP	Display the members in a group
SHOW TEMPLATES	List templates for remote boot workstations
SHOW USERS	List registered users created with PCSA
SHOW VERSION	Display the current version numbers for the VMS server
SHOW WORKSTATIONS	List workstations that remote boot
START DISK_SERVER CONNECTIONS	Start the disk server
START FILE_SERVER CONNECTIONS	Initiate the file server to accept connections
START FILE_SERVER LOGGING	Log server events
STOP DISK_SERVER CONNECTIONS	Stop the disk server

Table 1–1 (Cont.)   PCSA MANAGER Commands

Use this command...	If you want to...
STOP FILE_SERVER CONNECTIONS	Stop file server connections
STOP FILE_SERVER LOGGING	Stop logging server events
STOP FILE_SERVER SESSION	Stop a file service session
ZERO DISK_SERVER COUNTERS	Reset the disk counters

You can abbreviate the PCSA Manager commands to their shortest unique form.

Table 1–2 lists the PCSA Manager commands and the transports where they run.

Table 1–2   Manager Commands and Supported Transports

Command	DECnet	TCP/IP
ADD GROUP	Yes	Yes
ADD MEMBER	Yes	Yes
ADD NODE	Yes	No
ADD SERVICE/DIRECTORY	Yes	Yes
ADD SERVICE/PRINTER	Yes	Yes
ADD TEMPLATE	Yes	No
ADD USER	Yes	Yes
ADD WORKSTATION	Yes	No
BROADCAST	Yes	No
CONFIG	Yes	No
CLOSE FILE_SERVER FILE	Yes	Yes
CREATE DISK	Yes	Yes
DELETE DISK	Yes	Yes
DENY	Yes	Yes
DENY/GROUP	Yes	Yes
DISMOUNT DISK	Yes	Yes

Table 1–2 (Cont.)   Manager Commands and Supported Transports

Command	DECnet	TCP/IP
EXIT	Yes	Yes
GRANT	Yes	Yes
GRANT/GROUP	Yes	Yes
HELP	Yes	Yes
MENU	Yes	Yes
MODIFY DISK	Yes	No
MODIFY USER	Yes	No
MODIFY WORKSTATION	Yes	No
MOUNT DISK	Yes	Yes
REMOVE CLIENT_OS	Yes	Yes
REMOVE GROUP	Yes	Yes
REMOVE MEMBER	Yes	Yes
REMOVE NODE	Yes	No
REMOVE SERVICE	Yes	Yes
REMOVE TEMPLATE	Yes	No
REMOVE USER	Yes	No
REMOVE WORKSTATION	Yes	No
SET DISK_SERVER CHARACTERISTICS	Yes	Yes
SET DISK_SERVER SERVICE	Yes	Yes
SET FILE_SERVER CHARACTERISTICS	Yes	Yes
SET FILE_SERVER SERVICE	Yes	Yes
SHOW CLIENT_OS	Yes	No
SHOW DISK_SERVER CHARACTERISTICS	Yes	Yes
SHOW DISK_SERVER CONNECTIONS	Yes	Yes
SHOW DISK_SERVER COUNTERS	Yes	Yes
SHOW DISK_SERVER SERVICES	Yes	Yes
SHOW FILE_SERVER CHARACTERISTICS	Yes	Yes

Table 1–2 (Cont.)   Manager Commands and Supported Transports

Command	DECnet	TCP/IP
SHOW FILE_SERVER CONNECTIONS	Yes	Yes
SHOW FILE_SERVER COUNTERS	Yes	Yes
SHOW FILE_SERVER OPEN_FILES	Yes	Yes
SHOW FILE_SERVER SERVICES/ACTIVE	Yes	Yes
SHOW FILE_SERVER SERVICES/AUTHORIZED	Yes	Yes
SHOW FILE_SERVER SERVICES/REGISTERED	Yes	Yes
SHOW FILE_SERVER SESSIONS	Yes	Yes
SHOW FILE_SERVER STATUS	Yes	Yes
SHOW GROUP	Yes	Yes
SHOW TEMPLATES	Yes	No
SHOW USERS	Yes	No
SHOW VERSION	Yes	Yes
SHOW WORKSTATIONS	Yes	No
START DISK_SERVER CONNECTIONS	Yes	Yes
START FILE_SERVER CONNECTIONS	Yes	Yes
START FILE_SERVER LOGGING	Yes	Yes
STOP DISK_SERVER CONNECTIONS	Yes	Yes
STOP FILE_SERVER CONNECTIONS	Yes	Yes
STOP FILE_SERVER LOGGING	Yes	Yes
STOP FILE_SERVER SESSION	Yes	Yes
ZERO DISK_SERVER COUNTERS	Yes	Yes

ADD GROUP

Purpose

This command creates a new group where you can add members later.

Command Support

This command runs under the supported transport.

Guidelines

You must create a group before you can add members to it.

You cannot create the group PUBLIC.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

ADD GROUP groupname

Parameters

groupname   Is the name of the group you want to create. Groupname
                   cannot exceed 10 characters, and can contain alphanumeric
                   characters and the following:

                   $ % ; - _ @ { } ~ ` ! # ( )

Qualifiers

None

Example

You want to create the group WRITERS. Enter the following command:

```
PCSA_MANAGER> ADD GROUP WRITERS
%PCSA-I-GROUPCRE, created group WRITERS
```

Related Commands

ADD MEMBER, REMOVE GROUP

Related Menu Item

```
User Options
  Group Options
    Create a Group
```

ADD MEMBER

Purpose

This command adds members to a group created using the ADD GROUP command.

Command Support

This command runs under the supported transport.

Guidelines

You must create a group before you can add members to it.

You cannot add members to the group PUBLIC.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

ADD MEMBER memberlist groupname

Parameters

memberlist   Is a list of user names separated by commas. Each user name must be a valid user authorization file (UAF) entry.

groupname   Is the name of the group where you want to add members. Groupname cannot exceed 10 characters, and can contain alphanumeric charactes and the following:

                $ % ; - _ @ { } ~ ` ! # ( )

Qualifiers

None

Example

You want to add USER1, USER2, and USER3 to the group WRITERS.
Enter the following command:

```
PCSA_MANAGER> ADD MEMBER USER1,USER2,USER3 WRITERS
%PCSA-I-ADDGROUPMEM, member USER1 added to group WRITERS
%PCSA-I-ADDGROUPMEM, member USER2 added to group WRITERS
%PCSA-I-ADDGROUPMEM, member USER3 added to group WRITERS
%PCSA-I-ADDGROUPMEMSUMM, 3 members successfully added, 0 members not added
```

Related Commands

REMOVE MEMBER

Related Menu Item

```
User Options
  Group Options
    Add Members to a Group
```

ADD NODE

Purpose

This command registers a node in the DECnet volatile and permanent databases.

Command Support

This command runs under the supported transport.

Guidelines

Use this command if you want to communicate to other nodes on the network using DECnet.

Privileges

You need BYPASS, OPER, and SYSPRV privileges to use this command.

Format

ADD NODE nodename node-address

Parameters

nodename   Is the DECnet node name of one to six alphanumeric characters. At least one character must be alphabetic.

node-address   Is the DECnet node address of the workstation. The node address consists of the area number and the local number, in the format xx.xxxx. The area number must be between 1 and 63, and the local number must be between 0 and 1023, inclusive. Although the NCP program accepts node addresses without a local area number, the PCSA Manager menu accepts only complete node numbers.

Qualifiers

None

Example

You want to register the node BRONTE with the address 8.765. Enter the following command:

```
PCSA_MANAGER> ADD NODE BRONTE 8.765
%PCSA-I-ADDNODE, adding node BRONTE to DECnet database on all cluster nodes
```

Related Commands

REMOVE NODE

Related Menu Item

```
Workstation Options
  Node Registration Options
    Add a Node
```

ADD SERVICE/DIRECTORY

Purpose

This command creates a file service in the service database. A file service is a VMS directory to which client workstations can connect. The file service database defines file and print services and stores authorization records for groups and their users.

Command Support

This command runs under the supported transport.

Guidelines

The ADD SERVICE/DIRECTORY command:

* Registers the service name in the File Server Access Control File

* Optionally creates a directory where MS-DOS clients can place files

* Creates an access control list entry on the directory; this allows clients to access files in the directory

The file service database contains records for defining file services and print services. It also stores authorization records for group membership.

There are three types of file services. The file service type determines the default directory, which is represented by a logical. Table 1–3 lists each file service type and the logical that represents the service's default root directory.

Table 1–3   File Service Types

Service Type	Logical
SYSTEM	PCFS$SYSTEM
APPLICATION	PCFS$APPLICATION
COMMON	PCFS$COMMON

NOTE
The file service type USER is for an entry in the user authorization file (UAF). You can add a USER service by creating an account for the user. USER services are not maintained by the service database.

The /ACCESS qualifier of the GRANT command controls security for SYSTEM, APPLICATION, and COMMON services.

After using the ADD SERVICE/DIRECTORY command, you must grant users access to the service. See the GRANT command for more information on granting users access to a file service.

To change the device on which future system, application, and common services are created, edit the SYS$STARTUP:PCFS_LOGICALS.COM file and change the device associated with the relevant service.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

ADD SERVICE /DIRECTORY servicename
⎡ /ATTRIBUTES=type   ⎤
⎢ /[NO]CONFIRM   ⎥
⎢ /CONNECTIONS=n | NO_LIMIT   ⎥
⎢ /FILE_LENGTH=[ACTUAL | ESTIMATED]   ⎥
⎢ /RMS_PROTECTION=mask   ⎥
⎢ /ROOT=directory   ⎥
⎣ /TYPE=service   ⎦

Parameters

servicename   Is the 1- to 25-character name by which the service is known. Do not include spaces in the name.

Qualifiers

/ATTRIBUTES=type

Are the file attributes the file server uses when creating a file with this service. The possible attribute types are:

STREAM

Creates RMS stream files for this service. A stream file is terminated with a carriage return. STREAM is the default.

SEQUENTIAL_
FIXED

Creates RMS sequential fixed files for this service. A sequential fixed file is made up of 512-byte records.

Use this qualifier only when the service, which is usually an application file service, is used from both the workstation and the VAX, and when the VAX application produces sequential fixed 512-byte records.

/[NO]CONFIRM

Determines whether the PCSA Manager should prompt you with the directory specification before creating a directory. If you specify /CONFIRM, the PCSA Manager displays the directory specification and prompts you to enter Y (yes) or N (no). If you specify N, the PCSA Manager does not create the directory, and the commands stops. By default, the PCSA Manager does not prompt you before creating the directory.

/CONNECTIONS=n | NO_
LIMIT

Specifies the maximum number of connections that workstations can make to the service. The limit can be a number or the keyword NO_LIMIT, which means there is no limit to the number of workstation connections. The default is NO_LIMIT.

/FILE_LENGTH=ACTUAL
| ESTIMATED

Specifies whether the file server should determine an actual or estimated file length for non-stream files:

ACTUAL   Tells the file server to determine the actual file length in bytes that is returned to MS-DOS if the file were copied. Some applications may need to know the actual number of bytes in a file.

ESTIMATED   Tells the file server to estimate the file length based on the end-of-file pointer. The default is ESTIMATED.

The /FILE_LENGTH=ACTUAL qualifier can degrade file server performance. Use this qualifier with caution.

/RMS_PROTECTION=mask

Establishes a default RMS protection mask for files created with this service. You can modify this protection when you grant a user or group access to the service. The default protection mask is SYSTEM:RWED, OWNER:RWED, GROUP:, WORLD:.

/ROOT=directory

Explicitly specifies a root directory for the service. If you specify the /ROOT qualifier, it overrides the device and root directory specified with the /TYPE qualifier. If you omit the /ROOT qualifier, the directory name is the same as the service name and the device and root directory are determined by the /TYPE qualifier.

A root directory [000000] includes all files and subdirectories on the entire disk. Offering the root directory means offering an entire disk. If you choose to delete all the files in the service when you remove such a service, you delete all files on the entire disk.

If you specify only a device for the root directory, the root directory is the default directory from which you are working. Make sure that the default directory is not [000000].

If the directory does not exist, a new directory is created.

/TYPE=service	Is the file service type, which determines the service's default root directory from the following logicals:

APPLICATION	PCFS$APPLICATION (this is the default service type)
COMMON	PCFS$COMMON
SYSTEM	PCFS$SYSTEM

The default directory name is the same as the service name.

Example 1

You want to create a file service for the application LOTUS 1-2-3. You also want to limit connections to 10. Enter the following command:

```
PCSA_MANAGER> ADD SERVICE/DIRECTORY -
_PCSA_MANAGER> LOTUS123/ROOT=DUB1:[LOTUS123]/CONNECTIONS=10
%PCSA-I-DIRCREATED, directory DUB1:[LOTUS123] created
%PCSA-I-ACLCREATED, ACL created on DUB1:[0,0]LOTUS123.DIR
%PCSA-I-SERADDED, service "LOTUS123" added
```

The PCSA Manager adds an entry to the service database. The file server stores files for this service in the directory DUB1:[LOTUS123].

Example 2

You want to create a common file service named SALES. You also want to confirm the creation of the directory. Enter the following command:

```
PCSA_MANAGER> ADD SERVICE/DIRECTORY SALES /TYPE=COMMON /CONFIRM
Create directory SYS$SYSDEVICE:[SALES] [Y or N] (Y) : Y
%PCSA-I-DIRCREATED, directory SYS$SYSDEVICE:[SALES] created
%PCSA-I-ACLCREATED, ACL created on SYS$SYSDEVICE:[0,0]SALES.DIR
%PCSA-I-SERADDED, service "SALES" added
```

Example 3

You want to create a file service so that all files created in the service are world readable. Enter the following command:

```
PCSA_MANAGER>  ADD SERVICE/DIRECTORY servicename /RMS_PROTECTION=(W:READ)
```

Related Commands

None

Related Menu Item

```
Service Options
  Add Service
```

ADD SERVICE/PRINTER

Purpose

This command creates a printer service in the service database. A printer service is a VMS queue to which client workstations can connect. The file service database defines file and print services and stores authorization records for groups and their users.

Command Support

This command runs under the supported transport.

Guidelines

The ADD SERVICE/PRINTER command:

- Registers the service name in the File Server Access Control File

- Optionally creates a directory where MS-DOS clients can spool files

A printer service is a printer queue on a VAX server that workstations can access.

You can specify an existing directory or a new directory in which this service stores files.

Before you can add a printer service, the printer must have a physical device queue or generic queue. You can create the queue using the DCL printer management commands.

After using the ADD SERVICE/PRINTER command, you must grant users access to the service. For more information on granting users access to a print service, see the GRANT command in this chapter.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

ADD SERVICE /PRINTER servicename queuename
```
[ /[NO]CONFIRM                    ]
  /CONNECTIONS=n  |  NO_LIMIT
  /FORM=name
  /RMS_PROTECTION=mask
[ /SPOOL_DIRECTORY=directory      ]
```

Parameters

servicename	Is the 1- to 25-character name by which clients and the network know the service. Do not include spaces in the service name.
queuename	Is the name of either the physical or generic queue to which files are spooled.

Qualifiers

/[NO]CONFIRM	Determines whether the PCSA Manager should prompt you with the directory specification before creating a directory. If you specify /CONFIRM, the PCSA Manager displays the directory specification and prompts you to enter Y (yes) or N (no). The default is /NOCONFIRM.
/CONNECTIONS=n	NO_LIMIT	Defines the maximum number of connections that workstations can make to the service. The limit can be a number or the keyword NO_LIMIT, which means there is no limit to the number of workstation connections. By default, there is no limit.
/FORM=name	Is the name of a form in the device control library, which is used as a prefix for spooled print files. The form places the printer into a known state. If you omit this qualifier, the files are printed using the default form for the printer.

/RMS_PROTECTION=mask   Establishes a default RMS protection mask for files created with this service. You can modify this protection when you grant a user or group access to the service. The default protection mask is SYSTEM:RWED, OWNER:RWED, GROUP:, WORLD:.

/SPOOL_DIRECTORY=directory   Is the spool directory. If the directory does not exist, the PCSA Manager creates it. If you omit this qualifier, the PCSA Manager creates a spool directory on the device and root directory represented by the logical name PCFS$SPOOL. The directory name is the same as the service name.

Example

You want to add the printer service LN03_DPORT and name the queue PCFS$LN03. Enter the following command:

```
PCSA_MANAGER> ADD SERVICE/PRINTER LN03_DPORT PCFS$LN03 -
_PCSA_MANAGER> /FORM=LN03_DPORT
%PCSA-I-DIRCREATED, directory SYS$SYSDEVICE:[PCFS_SPOOL.LN03_DPORT] created
%PCSA-I-SERADDED, service "LN03_DPORT" added
```

Related Commands

None

Related Menu Item

```
Service Options
  Add Service
    Printer Service
```

ADD TEMPLATE

Purpose

This command saves the information needed for configuring one remote boot workstation so the information can be used when configuring another remote boot workstation. The information is saved in a template.

Command Support

This command runs under the supported transport.

Guidelines

You cannot add a template from a workstation that is earlier than Version 3.0.

The ADD TEMPLATE command asks you whether you want to dismount the network key disk for the workstation. The network key disk must be dismounted before you can add a template. If you choose to dismount the network key disk and the disk was previously mounted, it is remounted when the command is complete.

Privileges

You need BYPASS, OPER, and SYSPRV privileges to use this command.

Format

ADD TEMPLATE template-name nodename comment

Parameters

template-name	Is the name you give for the template. Do not enter an extension. The PCSA Manager gives the template name the extension .PCSA$WST and stores it in LADSBOOT_DISKS. The template name can be up to 39 characters.
nodename	Is the DECnet node name of the workstation whose network key disk you are saving. The node name consists of one to six alphanumeric characters. At least one character must be alphabetic.
comment	Is a comment describing the template. The comment can be up to 35 characters long. Specify a comment according to the DCL convention for entering a string.

Qualifiers

None

Example

You want to create a template called HUEYSTEMPLATE from the network key disk of node SERVR1. Enter the following command:

```
PCSA_MANAGER>  ADD TEMPLATE HUEYSTEMPLATE SERVR1 "This is a comment"
```

The key disk must reside in the directory LAD$BOOT_DISKS with an extension of .DSK.

Related Commands

None

Related Menu Item

None

ADD USER

Purpose

This command adds a user environment to the server.

Command Support

This command runs under the supported transport.

Guidelines

Adding a user environment to the server creates:

*   A VMS user account on the device specified by the logical PCFS$USER or what you specify using the /ROOT qualifier.

*   A VMS user account in the PCFS user group as specified by SYS$COMMON:[PCSA]PCFS_PARAMS.DAT.

*   The AUTOUSER.BAT file in the user's account, which contains MS-DOS commands to make connections to user-specific resources and printers. PCSA Manager creates the initial AUTOUSER.BAT.

This command puts you in the PCSA Manager menu, which prompts you for information. You are asked if you want to edit the AUTOUSER.BAT file using the EDT editor. You can use the logical PCSA$EDITOR_ command to point to an EDT initialization file.

Privileges

You need BYPASS, OPER, and SYSPRV privileges to use this command.

Format

ADD USER username $\begin{bmatrix} \text{/[NO]INTERACTIVE} \\ \text{/PASSWORD=password} \\ \text{/ROOT=directory} \\ \text{/VERSION\_LIMIT=n} \end{bmatrix}$

Parameters

username   Is the 1- to 12-character name used for the user account.

Qualifiers

/[NO]INTERACTIVE   Specifies whether the user's account can be used
                          for interactive logins or just connected to via a
                          workstation.

                          If you specify the /INTERACTIVE qualifier, the user
                          may log in interactively. That is, the user can set
                          host to a node and log in to the user account and use
                          it as if connected from a terminal.

                          If you specify the /NOINTERACTIVE qualifier,
                          the user can only connect to the account from a
                          workstation. /NOINTERACTIVE is the default.

/PASSWORD=password   Is the user password containing 1 to 31 characters, $,
                          or _. The default is WELCOME.

/ROOT=directory   Explicitly specifies a device and/or directory to
                          contain the user's files. If you omit this qualifier,
                          the default device is determined from the logical
                          name PCFS$USER, with the directory name the
                          same as the user name.

                          To change the device on which user
                          accounts are created by default, edit the file
                          SYS$STARTUP:PCFS_LOGICALS.COM and change
                          the device associated with the PCFS$USER logical.
                          You must run the PCFS_LOGICALS.COM file for the
                          changes to take effect.

/VERSION_LIMIT=n   Is the number of versions of any one VMS file that
                          can exist in the user's directory. If you exceed the
                          limit, the system deletes the lowest numbered
                          version. A specification of 0 means no limit. The
                          maximum number of versions allowed is 32,767. The
                          default is 1.

Example

You want to add a user to the server. Enter the following command:

```
PCSA_MANAGER> ADD USER/PASSWORD=FORTHE/ROOT=DUA0: DIPPER
```

After you complete the prompts, the PCSA Manager asks if you want to run EDT to edit the AUTOUSER.BAT file. You can edit the AUTOUSER.BAT file if you want to customize DOS or change the user's path. To complete the command, exit the editor.

Related Commands

None

Related Menu Item

```
User Options
   Add a User
```

ADD WORKSTATION

Purpose

This command:

* Uses a template key disk for additional workstations configured for remote boot, with the /TEMPLATE qualifier.

* Configures a Version 2.2 workstation on a Version 4.0 server.

Command Support

This command runs under the supported transport.

Guidelines

Before using the ADD WORKSTATION/TEMPLATE command, you must have created a template with the ADD TEMPLATE command described in this chapter.

Privileges

You need BYPASS, OPER, and SYSPRV privileges to use this command.

Format

ADD WORKSTATION nodename node-address comment
⌈ /ADAPTER=(TYPE=adapter,ADDRESS=address ⌉
| /CLIENT_VERSION=number |
| /DEVICE=name |
| /DOS=name |
| /SIZE=size |
⌊ /TEMPLATE=name   ⌋

Parameters

nodename   Is the DECnet node name of one to six alphanumeric
                  characters. At least one character must be alphabetic.

node-address   Is the DECnet node address of the workstation. The node
                  address consists of the area number and the local number,
                  in the format xx.xxx. The area number must be between 1
                  and 63, and the local number must be between 0 and 1023,
                  inclusive. Although the NCP program accepts node addresses
                  without a local area number, the PCSA Manager menu accepts
                  only complete node numbers.

comment   Is the comment used to describe the workstation. Specify
                  a comment according to the DCL convention for entering a
                  string. The comment is displayed when you use the SHOW
                  WORKSTATIONS command.

Qualifiers

/ADAPTER=(TYPE=type,   The adapter is the type of Ethernet adapter in the
ADDRESS=address)   workstation. You must specify one of the following:

Adapter	Compatible Client Version
DEMCA	2.2, 3.0
DEPCA	2.2, 3.0
DEPCA_H	4.0
DEPCA_S	4.0
LANCE	2.2
NI5010	2.2, 3.0
3C501	2.2, 3.0
3C503	2.2, 3.0, 4.0
3C523	2.2, 3.0, 4.0

The workstation must have one of these adapters
to remote boot. The hardware address of the
Ethernet controller installed in the workstation
is used when creating the network key disk. The
hardware address is six pairs of hexadecimal digits
separated by dashes (-).

You cannot specify TYPE= and /TEMPLATE
together.

/CLIENT_
VERSION=number

Use this qualifier to specify the client version
associated with the workstation. The default is 22.
To specify a PCSA version, enter nm. For example,
to specify PCSA Version 2.2, type 22. You must use
this qualifier if you are configuring a Version 2.2
client on a Version 4.0 server.

Do not use this qualifier if you use the
/TEMPLATE qualifier.

/DEVICE=name

Is the VAX network controller to be used to service
a workstation's boot request. For example, SVA-0.

/DOS=name

The name you gave DOS when you copied it to the
server using the DOSLOAD utility. You must use
this qualifier when configuring a Version 2.2 client
on a Version 3.0 server.

Do not use this qualifier if you use the
/TEMPLATE qualifier.

/SIZE=size

Is the size of the network key disk you are
creating. Specify a size that equals the size of the
diskette drive A on the workstation. For example,
to specify 360 Kbytes, enter 360. To specify 1.2
Mbytes, enter 1.2. Specify:

360 Kbytes

720 Kbytes

1.2 Mbytes

1.44 Mbytes

If you omit this qualifier, the PCSA Manager automatically sets the size of the virtual disk to 360 Kbytes. Do not use this qualifier if you use the /TEMPLATE qualifier.

/TEMPLATE=name   Is the name of the template with information for the network key disk. The ADD WORKSTATION/TEMPLATE command duplicates the information stored for the network key disk of another workstation specified by the template-name. The ADD WORKSTATION command uses the template and the current workstation's node name and address to create a new network key disk. The template-name must be the one set by using the ADD TEMPLATE command. Do not enter a file name with an extension. The template name can be up to 39 characters.

The /TEMPLATE qualifier creates a workstation with the same adapter type, client version, DOS version and keydisk size as the workstation from which the template file was created.

Do not use the /TEMPLATE qualifier with the /CLIENT_VERSION qualifier.

You cannot specify TYPE= and /TEMPLATE together.

Example 1

You want to create a network key disk for a node named BRONTE. You want to save the information in RONS_TEMPLATE. Enter the following command:

```
PCSA_MANAGER>  ADD WORKSTATION BRONTE 9.843 "RON'S PC"-
_PCSA_MANAGER>  /ADAPTER=(ADDRESS=08-00-2B-01-22-78)
```

Example 2

You want to set aside a 1.2 Mbyte virtual disk to be used for a COMPAQ workstation with a DEPCA controller, using:

- DECnet node name BRONTE

- DECNET node address 9.213 Ethernet address 24-20-1B-01-22-23

Enter the following command:

```
PCSA_MANAGER>  ADD WORKSTATION BRONTE 9.213 -
_PCSA_MANAGER>  "COMPAQ_CQV33_1.22MB" -
_PCSA_MANAGER>  /ADAPTER=(TYPE=DEPCA,ADDRESS=24-20-1B-01-22-23) -
_PCSA_MANAGER>  /DOS=CQSYSV33 /CLIENT_VERSION=22 /SIZE=1.2 MB
```

Related Commands

REMOVE WORKSTATION

Related Menu Item

```
Workstation Options
  Node Registration Options
    Add a Node
```

BROADCAST

Purpose

This command lets you send messages to:

- One or more specific workstations
- All workstations
- Individual users

The message may be up to 127 characters long.

Command Support

This command runs under the supported transport.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

BROADCAST $\left[\begin{array}{l} \text{nodename, ...} \quad | \quad * \\ \text{message text} \quad | \quad \text{"message text"} \end{array} \right]$

Parameters

nodename	Is the DECnet node name of one or more specific nodes.
*	Indicates all nodes.
message text	Is the message text, which will be converted to uppercase text.
"message text"	Is the message text with the case intact.

Qualifiers

None

Example 1

You want to send a message to all workstations on the network. Enter the following command:

```
PCSA_MANAGER> BROADCAST * "The server is stopping in 5 minutes."
```

Example 2

You want to send a message to TDOG. Enter the following command:

```
PCSA_MANAGER> BROADCAST TDOG "The server is stopping in 5 minutes."
```

Related Commands

None

Related Menu Item

```
Utility Options
  Send Broadcast Message
```

CONFIG

Purpose

This command verifies the current configuration of the file server and starts it.

Command Support

This command runs under the supported transport.

Guidelines

You use this command in a startup file. CONFIG creates the log file PCFS$LOG_FILE:PCFS$STARTUP.LOG, which reports the current system configuration and any error encountered during configuration.

Privileges

You need CMKRNL, OPER, and SYSPRV privileges to use this command.

Format

CONFIGURE [/IGNORE]

Parameters

None

Qualifiers

/IGNORE   Specifies that if problems were found during the verification of the file server's configuration, the file server should still be started.

Related Commands

None

Related Menu Item

```
Utility Options
  Configure Server Parameters
```

CLOSE FILE_SERVER FILE

Purpose

This command closes a file that a workstation opened with the file server. You can close a file if a user leaves the workstation unattended with a file opened so that other users cannot use it.

The file server asks you to verify that you want to close the specified file. If you verify the request, the server closes the file.

Command Support

This command runs under the supported transport.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

CLOSE FILE_SERVER FILE identifier [/[NO]CONFIRM]

Parameters

identifier   Is the number the file server assigns when it opens the file. The server assigns a unique file identifier to each open file, even if that file is currently open by another workstation. You can determine the file identifier using the SHOW FILE_ SERVER OPEN_FILES command.

Qualifiers

/[NO]CONFIRM   Determines whether the PCSA Manager should prompt you before closing the file. /CONFIRM is the default.

Example

You want to close a file with the file identifier 4. Enter the following command:

```
PCSA_MANAGER> CLOSE FILE_SERVER FILE 4
Close file with file-id 4 [Y or N] (Y) : Y
%PCSA-I-FILECLOSED, file with file-id 4 closed
```

Related Commands

SHOW FILE_SERVER OPEN_FILES

Related Menu Item

None

CREATE DISK

Purpose

This command creates and formats an MS-DOS virtual disk. Then, you can offer the virtual disk to the network as a disk service. If a file by the same name already exists in the target directory, the PCSA Manager does not create a virtual disk.

Command Support

This command runs under the supported transport.

Guidelines

Before users can connect to the disk service, you must offer the virtual disk to the network with the MOUNT DISK command.

To create a virtual disk, you must have write access to the directory in which the virtual disk is created.

To use this command, you need:

- Write access to the directory where the virtual disk is stored

- Either of the following:

  — OPER and SYSPRV privileges

  — Privilege to mount a virtual disk. To receive this privilege, use the SET DISK_SERVER CHARACTERISTICS command with the /USER_MOUNT qualifier.

Format

CREATE DISK file-spec $\left[\begin{array}{l} \text{/ALLOCATION=n} \\ \text{/CONTIGUOUS} \\ \text{/SIZE=n} \\ \text{/TYPE=class} \end{array} \right]$

Parameters

file-spec   Is the VMS file specification for the virtual disk. The default file
             extension for a virtual disk is .DSK. To specify the directory for
             the virtual disk, you can:

             Explicitly state the directory for the virtual disk in the file
             specification.

             Use the /TYPE qualifier to select the type of virtual disk. The
             PCSA Manager then creates the virtual disk in the default
             directory for the specified virtual disk type.

Qualifiers

/ALLOCATION=n   Is the number of blocks to allocate to the virtual disk. The
                number of blocks must be in a range between the minimum
                allocation and the default file size in blocks, listed in
                Table 1–4. This value overrides the implicit size given by
                the /SIZE qualifier, but cannot exceed the implicit size. Use
                this qualifier to create a virtual disk that is physically smaller
                than its formatted size.

                For example, you can create a 5 Mbyte disk, which is 10240
                blocks, and choose to allocate 5000 blocks. You can extend the
                size up to the formatted size (10240 blocks) as necessary. To
                extend the size, use the MODIFY DISK command.

                If you omit this qualifier, the PCSA Manager allocates the
                total number of blocks for the specified disk size.

/CONTIGUOUS   Creates the virtual disk as a contiguous file. By default, or if
                insufficient contiguous disk space exists, the PCSA Manager
                creates the file *contiguous best try*, which means using the
                largest contiguous portions of the disk.

/SIZE=n   Defines the size of the virtual disk. For example, to specify a
                5 Mbyte disk, type /SIZE=5MB. If you create a network key
                disk, specify a size of either 360KB, 760KB, 1.2MB or 1.44MB.

                You should specify a network key disk size that is equal to
                the size of the floppy drive on the workstation that uses the
                network key disk.

                The PCSA Manager allocates the total number of blocks for
                the size specified by this qualifier, unless you specify the
                /ALLOCATION qualifier. The PCSA Manager formats the
                virtual disk according to the size specified. Table 1–4 lists
                the possible disk sizes and their corresponding VMS file sizes.

/TYPE=class   Determines a default directory for the virtual disk. There is
                     one default directory for each type virtual disk. The PCSA
                     Manager creates the virtual disk in the directory associated
                     with the type. Each directory is represented by a system-
                     wide logical. The types of virtual disks and the logicals that
                     represent each type's default directory are:

SYSTEM	Device and directory represented by LAD$SYSTEM_DISKS
BOOT	Device and directory represented by LAD$BOOT_DISKS
APPLICATION	Device and directory represented by LAD$APPLICATION_DISKS
USER	No logical; the virtual disk is created in the current directory. You should create user disks in the user's directory. If your default is not set to the user's directory, specify it in the file specification.

The default is /TYPE=USER.

Table 1–4   Allocating Disk Size

Disk Size	Default File Size in Blocks	Minimum Allocation in Blocks
360 Kbytes	720	12
720 Kbytes	1440	14
1.2 Mbytes (default)	2400	29
1.44 Mbytes	2840	33
5 Mbytes	10240	66
10 Mbytes	20480	16417
20 Mbytes	40960	16417
32 Mbytes	65535	16417
64 Mbytes	131072	16633

Table 1–4 (Cont.)   Allocating Disk Size

Disk Size	Default File Size in Blocks	Minimum Allocation in Blocks
128 Mbytes	262144	32977
256 Mbytes	524288	65665
512 Mbytes	1048576	65921

Example 1

You want to create and format a 1.2 Mbyte virtual disk for user JONES
in the current directory. Enter the following command:

```
PCSA_MANAGER> CREATE DISK JONES
%PCSA-I-CREATEDISK, creating DUA1:[JONES]JONES.DSK
%PCSA-I-FORMAT DISK, formatting disk, Size=1.2MB, Allocation=2400/2400
%PCSA-I-DISKCREATED, DUA1:[JONES]JONES.DSK created
```

Example 2

You want to create and format a 5-Mbyte virtual disk for the application
MULTIPLAN and allocate 5000 blocks to the disk. Enter the following
command:

```
PCSA_MANAGER> CREATE DISK MULTIPLAN /SIZE=5MB -
_PCSA_MANAGER> /TYPE=APPLICATION /ALLOCATION=5000
%PSCA-I-CREATEDISK, creating SYS$SYSDEVICE:[PCSA.LAD]MULTIPLAN.DSK
%PCSA-I-FORMAT, formatting disk, Size=5MB, Allocation=5000/10240
%PCSA-I-DISKCREATED, SYS$SYSDEVICE:[PCSA.LAD]MULTIPLAN.DSK created
```

Related Commands

None

Related Menu Item

None

DELETE DISK

Purpose

This command deletes a virtual disk.

Command Support

This command runs under the supported transport.

Guidelines

Before you delete a virtual disk, be sure:

- The disk is dismounted. The PCSA Manager does not delete the disk if it is mounted.

- You have write access to the disk.

- You have either of the following:

  — OPER and SYSPRV privileges

  — Privilege to mount a virtual disk. To receive this privilege, use the SET DISK_SERVER CHARACTERISTICS command with the /USER_MOUNT qualifier.

To determine if the disk is dismounted, use the SHOW DISK_SERVER SERVICES command. If the disk is not listed, then it is dismounted.

NOTE
Although you can delete a virtual disk with the VMS DELETE command, you should use the PCSA Manager DELETE DISK command because it verifies that the disk is not mounted before attempting to delete it. Deleting a mounted disk can cause unexpected results.

You should use the BROADCAST command to notify users that dismount and deletion of the disk is imminent.

Format

DELETE DISK file-spec [/TYPE=class]

Parameters

file-spec   Is the VMS file specification for the virtual disk. The default file
                  extension for a virtual disk is .DSK. To specify the directory for
                  the virtual disk, you can:

                  Explicitly state the directory for the virtual disk in the file
                  specification.

                  Use the /TYPE qualifier to select the type of virtual disk. The
                  PCSA Manager then deletes the virtual disk from the default
                  directory for the specified virtual disk type.

Qualifiers

/TYPE=class   Determines the default directory for the virtual disk file that
                  you want to delete. The types of virtual disks and the logicals
                  that represent each type's default directory are:

                  SYSTEM   LAD$SYSTEM_DISKS

                  BOOT   LAD$BOOT_DISKS

                  APPLICATION   LAD$APPLICATION_DISKS

                  USER   No logical; the PCSA Manager looks for
                                    user disks in the current directory or
                                    in the file specification you use in the
                                    command line.

Example 1

You want to delete the virtual disk JONES.DSK from the current
directory. Enter the following command:

```
PCSA_MANAGER>  DELETE DISK JONES
%PCSA-I-DISKDELETED, DUA1:[JONES]JONES.DSK;1 deleted
```

Example 2

You want to delete the virtual disk MULTIPLAN.DSK from the current
directory. Enter the following command:

```
PCSA_MANAGER>  DELETE DISK MULTIPLAN /TYPE=APPLICATION
%PCSA-I-DISKDELETED, SYS$SYSDEVICE:[PCSA.LAD]MULTIPLAN.DSK;1 deleted
```

Related Commands

None

Related Menu Item

None

DENY

Purpose

This command denies a user access to a file or print service. The PCSA Manager deletes the user's entry in the service database.

You can deny access to all file and print services granted to a user by specifying an asterisk (*) as the alias.

Command Support

This command runs under the supported transport.

Privileges

You need OPER and SYSPRV privileges to use this command. You can grant a user access to a file or print service with the GRANT command.

Format

DENY username alias

Parameters

username   Is the name of the user to whom you want to deny access.

alias   Is the 1- to 25-character name by which the user knows the
             service. To deny all services granted to a user, specify an asterisk
             (*).

Qualifiers

None

Example 1

You want to deny user JONES access to the file service PLANS. Enter the following command:

```
PCSA_MANAGER> DENY JONES PLANS
%PCSA-I-SERDENIED, service "PLANS" denied to user/group "JONES"
```

Example 2

You want to deny user SMITH access to all file and print services. Enter the following command:

```
PCSA_MANAGER> DENY SMITH *
%PCSA-I-SERDENIED, service "MULTIPLAN" denied to user/group "SMITH"
%PCSA-I-SERDENIED, service "PLANS" denied to user/group "SMITH"
%PCSA-I-SERDENIED, service "LN03_DPORT" denied to user/group "SMITH"
```

Related Commands

GRANT

Related Menu Item

```
Service Options
  Deny User Access
```

DENY/GROUP

Purpose

This command denies all users in a group access to a file or print service. The PCSA Manager deletes the group's entry in the service database.

Command Support

This command runs under the supported transport.

Guidelines

A *group* is a logical collection of users that you want to treat as a single entity. If you have five secretaries on your server, you can add them all to the group SECRETARY. Then you can deny or grant that group access to services. You can add secretaries as needed. The new member or members would have the same access as the original five secretaries. For more information, see the CREATE GROUP command.

Privileges

You need OPER and SYSPRV privileges to use this command.

You can grant a group of users access to a file or print service with the GRANT/GROUP command.

Format

DENY/GROUP groupname alias

Parameters

groupname	Is the name of the group to whom you want to deny access.
alias	Is the 1- to 25-character name by which users know the service. To deny all services granted to the group, specify an asterisk (*). If you did not assign an alias when granting the service, then the alias is the service name.

Qualifiers

None

Example 1

You want to deny all users in the group PUBLIC access to the service
TESTS. Enter the following command:

```
PCSA_MANAGER> DENY/GROUP PUBLIC TESTS
%PCSA-I-SERDENIED, service "TESTS" denied to user/group "PUBLIC"
```

Example 2

You want to deny all users in group PUBLIC access to all services. Enter
the following command:

```
PCSA_MANAGER> DENY/GROUP PUBLIC *
%PCSA-I-SERDENIED, service "TESTS" denied to user/group "PUBLIC"
%PCSA-I-SERDENIED, service "PLANS" denied to user/group "PUBLIC"
%PCSA-I-SERDENIED, service "LN03_DPORT" denied to user/group "PUBLIC"
```

Related Commands

GRANT /GROUP

Related Menu Item

```
Service Options
  Deny Group Access
```

DISMOUNT DISK

Purpose

This command specifies a virtual disk service as no longer available to the network. The disk server disconnects all clients and closes the virtual disk file.

Command Support

This command runs under the supported transport.

Guidelines

To use this command, you need:

- Write access to the disk

- Either of the following:

    — OPER and SYSPRV privileges

    — Privilege to mount a virtual disk. To receive this privilege, use the SET DISK_SERVER CHARACTERISTICS command with the /USER_MOUNT qualifier.

Format

DISMOUNT DISK service $\left[\begin{array}{l} \text{/CLUSTER} \\ \text{/[NO]PERMANENT} \\ \text{/[NO]PURGE} \end{array}\right]$

Parameters

service   Is the 1- to 25-character name of the service being dismounted.

Qualifiers

/CLUSTER   Dismounts the specified service for all nodes in a cluster.

/[NO]PERMANENT Specifies whether to permanently dismount (/PERMANENT) the specified service or dismount it just this time (/NOPERMANENT). The disk server does not automatically remount the permanently dismounted services upon startup. /PERMANENT is the default qualifier.

/[NO]PURGE   Specifies whether to delete the service's entry (or entries) in the disk server's service database, unless the service is mounted. /NOPURGE is the default.

Example 1

You want to dismount the service PLANS for all nodes in a cluster. Enter the following command:

```
PCSA_MANAGER> DISMOUNT DISK PLANS /CLUSTER
%PCSA-I-DISKDISMOUNTED, SYS$SYSDEVICE:[PCSA.LAD]PLANS.DSK;1 dismounted
```

Example 2

You want to dismount the service MYDISK. Enter the following command:

```
PCSA_MANAGER> DISMOUNT DISK MYDISK
%PCSA-I-DISKDISMOUNTED, DUA1:[JONES]JONES.DSK;1 dismounted
```

Related Commands

MOUNT DISK

Related Menu Item

```
Service Options
  Modify Disk Service
    Dismount Disk
```

EXIT

Purpose

This command exits the PCSA Manager and returns to DCL.

Format

EXIT

Parameters

None

Qualifiers

None

Example

You want to exit the PCSA Manager. Enter the following command:

```
PCSA_MANAGER> EXIT
```

Related Commands

None

Related Menu Item

None

GRANT

Purpose

This command grants a user access to a file or print service and creates
an entry for the specified user in the file server's service database.

Command Support

This command runs under the supported transport.

Guidelines

Using an alias, you can grant users access to a service using an alternate
name. For example, if user A uses LOTUS 1-2-3 Version 2.0 and user
B uses LOTUS 1-2-3 Version 2.1, both users can connect to the alias
LOTUS. This alias represents the service name LOTUS20 to user A and
LOTUS21 to user B. See Example 3 for the command syntax.

Privileges

You need OPER and SYSPRV privileges to use this command.

You must create a service before you can grant access to it. To create a
service, use the ADD SERVICE command.

Format

GRANT username service [alias] $\left[\begin{array}{l} \text{/ACCESS=(option1[,...])} \\ \text{/RMS\_PROTECTION=mask} \end{array} \right]$

Parameters

username	Is the name of the user to whom access is granted. An account must exist in the user authorization file (UAF) for username.
service	Is the name of the file or print service being granted.
alias	Is an alias (or alternate name) by which the user knows the service. This is the name the user specifies when making a connection. If you omit an alias, the service name is the default alias.

Qualifiers

/ACCESS=(option1[,...])   Is the type of access granted to the service user. Specify one or more of the following:

> READ   For read access
>
> WRITE   For write access; WRITE access does not imply READ access.
>
> CREATE   For create access
>
> From this qualifier, the file server determines if the user's requested operation is compatible with the access granted. If the operation is compatible, the VMS operating system can further restrict access to the service.
>
> If this qualifier is omitted, the default is /ACCESS=(READ). If you grant access to a printer service, the PCSA Manager ignores this qualifier and grants READ, WRITE, and CREATE access.

/RMS_PROTECTION=mask   Establishes a default RMS protection mask for files created with this service. If you omit this qualifier or a class (SYSTEM, OWNER, GROUP, or WORLD), the default is determined by the protection mask set when you added the service with the ADD SERVICE command. This qualifier has no effect on a printer service.

Example 1

You want to grant user JONES read access to the service REPORTS. Enter the following command:

```
PCSA_MANAGER> GRANT JONES REPORTS
%PCSA-I-SERGRANTED, service "REPORTS" granted to user/group "JONES"
```

Example 2

This example want to grant user USERA read access to the service LOTUS20 using the alias LOTUS. Enter the following command:

```
PCSA_MANAGER> GRANT USERA LOTUS20 LOTUS
%PCSA-I-SERGRANTED, service "LOTUS" granted to user/group "USERA"
```

Example 3

You want to grant USERA access to the service LOTUS20 and USERB
access to the service LOTUS21 using the same alias. Enter the following
command:

```
PCSA_MANAGER> GRANT USERB LOTUS21 LOTUS
%PCSA-I-SERGRANTED, service "LOTUS" granted to user/group "USERB"
```

Related Commands

DENY

Related Menu Item

```
Service Options
  Grant User Access
```

GRANT/GROUP

Purpose

This command grants all users in a group access to a file or print service and creates an entry for the specified group in the service database.

Command Support

This command runs under the supported transport.

Guidelines

You must create the service before you can grant access to it. To create a service, use the ADD SERVICE command.

Determining Tree Connect Access

An alias is simply another name for a service. In the following example, both these users connect to alias JOE, but LONG connects to service FRED and FRANCINI connects to service BILL.

```
$ PCSA GRANT LONG FRED JOE
$ PCSA GRANT FRANCINI BILL JOE
```

Access is determined as follows:

* When a tree connect is made to an alias, access context (RWC and RMS protection) must be established, as well as a service name. The GRANT /GROUP command does this from the first matching access control record found in the following descending order:

    — Grant record for the user to that alias.

    — Grant record for each group of which the user is a member to that alias. Aliases cannot be specified on GRANTs to groups other than PUBLIC.

    — Grant record for the group PUBLIC to that alias.

* After a service name is established, only Grant records that have a matching alias and service name are used for further access context definition.

For example, assume the following sequence of commands:

```
$ PCSA ADD GROUP SALES
$ PCSA ADD MEMBER LONG SALES
$ PCSA GRANT/GROUP SALES LOTUS
```

When Long connects to alias LOTUS, he connects to the service
LOTUS with Read access.

Assume the following command is then typed:

```
$ PCSA GRANT LONG FRED LOTUS
```

When Long connects to alias LOTUS, he connects to the service FRED
(with Read access). His user-specific access record overrides the
group-specific access record.

Again, assume the following command is typed:

```
$ PCSA GRANT /GROUP PUBLIC FRED LOTUS /ACCESS=(R,W,C)
```

When Long connects to alias LOTUS, he now receives Read, Write,
and Create access to service FRED, because the PUBLIC GRANT
record is now part of his access context.

If the preceding command had been the following command, no change
would be made, because, although the alias names match, the service
names do not.

```
$ PCSA GRANT /GROUP PUBLIC JOE LOTUS /ACCESS=(R,W,C)
```

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

GRANT /GROUP groupname service [alias]
[/ACCESS=(option1[,...])   ]
[/RMS_PROTECTION=mask   ]

Parameters

groupname   Is the name of the group to whom access is granted.

service   Is the name of the file or print service being granted.

alias   Is an alias (or alternate name) by which the user knows the
               service. This is the name the user specifies when making a
               connection. If you omit an alias, the service name is the default
               alias.

Qualifiers

/ACCESS=(option1[,...])   Is the type of access granted to the service user.
                             Specify one or more of the following:

READ	For read access
WRITE	For write access
CREATE	For create access

From this qualifier, the file server determines if
the user's requested operation is compatible with
the access granted. If the operation is compatible,
the VMS operating system may further restrict
access to the service.

WRITE access does not imply READ access.

If this qualifier is omitted, the default is
/ACCESS=(READ). If you grant access to a printer
service, the PCSA Manager ignores this qualifier
and grants READ, WRITE, and CREATE access.

/RMS_PROTECTION=mask   Establishes a default RMS protection mask for
                          files created with this service. If you omit this
                          qualifier or a class (SYSTEM, OWNER, GROUP,
                          or WORLD), the default is determined by the
                          protection mask set when you added the service
                          with the ADD SERVICE command.

Example

You want to grant all users in the group PUBLIC read access to the
service VXSYS. Enter the following command:

```
PCSA_MANAGER>  GRANT/GROUP PUBLIC VXSYS /ACCESS=(READ)
%PCSA-I-SERGRANTED, service "VXSYS" granted to user/group "PUBLIC"
```

Related Commands

DENY /GROUP

Related Menu Item

```
Service Options
  Grant Group Access
```

HELP

Purpose

This command displays help with the PCSA Manager or its commands.

Format

HELP [command] [topic]

Parameters

command   Is the name of the command for which you want help. If you
              omit a command, the PCSA Manager displays general help.

topic   Is the name of a command topic about which more information
              is available. To see a list of topics for a command, see the
              command's HELP display.

NOTE

You can also obtain help on the PCSA Manager and its commands at the
DCL level.

Qualifiers

None

Example 1

You want to display help. Enter the following command:

```
PCSA_MANAGER>  HELP

HELP

    The HELP command invokes the VMS help facility to display
    help about a particular PCSA Manager command. For more
    information, see the System Administrator's Guide.

    Additional information available:

    ADD      CLOSE    CREATE   DELETE   DENY      DISMOUNT   EXIT
    GRANT    HELP     MENU     MODIFY   MOUNT     REMOVE     SET
    SHOW     START    STOP     ZERO

TOPIC?
```

Example 2

You want to display help for the PCSA Manager command SHOW FILE_
SERVER. Enter the following command:

```
PCSA_MANAGER>  HELP SHOW FILE_SERVER

SHOW

  FILE_SERVER

      The SHOW FILE_SERVER command is used to display
      various information on the operation of the File
      Server. The information to be displayed is selected
      from the list below:

    Additional information available:

    CHARACTERISTICS      CONNECTIONS    COUNTERS    OPEN_FILES
    SERVICES          SESSIONS    STATUS

SHOW FILE_SERVER subtopic?
```

Related Commands

None

Related Menu Item

None

MENU

Purpose

This command invokes the PCSA Manager menu, a menu-driven
utility that provides a simplified method of accomplishing many PCSA
management tasks. Use this menu as an alternative to the PCSA Manage
commands.

NOTE
Do not use the PCSA Manager MENU command in a batch file.

Command Support

This command runs under the supported transport.

Format

MENU

Parameters

None

Qualifiers

None

Example

You want to start the Menu utility. Enter the following command:

```
PCSA_MANAGER>  MENU
```

Related Commands

ADMINISTRATE

Related Menu Item

None

MODIFY DISK

Purpose

This command increases the virtual disk size allocation. Make sure the virtual disk is dismounted before modifying it.

Command Support

This command runs under the supported transport.

Guidelines

To determine the actual size of the virtual disk, you need to know the name of the virtual disk container file. Then, use the DIR command to display the number of bytes allocated for the virtual disk.

To modify a virtual disk, you must have write access to the virtual disk file. You can only increase a file's size up to its formatted size.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

MODIFY DISK file-spec $\left[\begin{array}{l} \text{/EXTENSION[=n]} \\ \text{/TYPE=class} \end{array}\right]$

Parameters

file-spec   Is the file specification for the virtual disk. To specify the directory for the virtual disk, you can:

Explicitly state the directory for the virtual disk in the file specification.

Use the /TYPE qualifier to select the type of virtual disk. The PCSA Manager then modifies the virtual disk file in the default directory for the specified virtual disk type.

Qualifiers

/EXTENSION[=n]   Is the number of blocks to extend the virtual disk. You cannot extend the disk beyond its formatted size. If you specify an extension beyond the formatted size, the PCSA Manager extends the disk to its formatted size. If you omit the number of blocks, the PCSA Manager extends the disk to its formatted size.

/TYPE=class   Specifies the default directory that contains the virtual disk. There is one default directory for each type of virtual disk file. Each directory is represented by a logical. The types of virtual disk files and the logical representing each type's default directory are:

SYSTEM   LAD$SYSTEM_DISKS

BOOT   LAD$BOOT_DISKS

APPLICATION   LAD$APPLICATION_DISKS

USER   No logical; the virtual disk is in the current directory or it is stated in the file specification.

The default is /TYPE=USER.

Example 1

You want to extend the virtual disk JONES.DSK by 50 blocks. Enter the following command:

```
PCSA_MANAGER>  MODIFY DISK JONES.DSK /EXTENSION=50
%PCSA-I-DISKMODIFIED, DUA1:[JONES]JONES.DSK;1 modified
```

Example 2

You want to extend the application virtual disk LOTUS.DSK by 100 blocks. Enter the following command:

```
PCSA_MANAGER>  MODIFY DISK LOTUS.DSK /EXTENSION=100 -
_PCSA_MANAGER>  /TYPE=APPLICATION
%PCSA-I-DISKMODIFIED, SYS$SYSDEVICE:[PCSA.LAD]LOTUS.DSK;1 modified
```

Related Commands

None

Related Menu Item

None

MODIFY USER

Purpose

This command allows you to change a user's AUTOUSER.BAT file, which contains MS-DOS commands to make connections to user-specific resources and printers.

The AUTOUSER.BAT file is located in the user's VMS default directory.

Command Support

This command runs under the supported transport.

Guidelines

This command asks whether you want to use the EDT editor, which allows you to edit the AUTOUSER.BAT file. If the AUTOUSER.BAT file is not present, this command does nothing.

Privileges

You need BYPASS, OPER, and SYSPRV privileges to use this command.

Format

MODIFY USER username

Parameters

username   Is the 1- to 12-alphanumeric character name used for the user account name.

Qualifiers

None

Example

You want to modify the environment of the user GAIPPER. Enter the following command:

```
PCSA_MANAGER>  MODIFY USER GAIPPER
```

The PCSA Manager asks you if you want to run the EDT editor to edit the AUTOUSER.BAT file. Edit the AUTOUSER.BAT file if you want to customize DOS or change the use's path.

NOTE

You can use the logical PCSA$EDITOR_command to point to an EDT initialization file.

Once in the editor, to complete the command, exit the editor.

Related Commands

None

Related Menu Item

```
User Options
  Modify a User
```

MODIFY WORKSTATION

Purpose

This command changes the following components in the remote boot database:

- The Ethernet address of the workstation
- The Ethernet adapter of the workstation
- The VAX Ethernet adapter
- The client software version
- The comment

Use this command for workstations that remote boot.

Command Support

This command runs under the supported transport.

Privileges

You need BYPASS, OPER, and SYSPRV privileges to use this command.

Format

MODIFY WORKSTATION nodename
[/ADAPTER=(TYPE=adapter,ADDRESS=address)]
[/CLIENT_VERSION=pcsa-version   ]
[/COMMENT=string   ]
[/DEVICE=name   ]

Parameters

nodename   Is the DECnet node name of one to six alphanumeric characters.
               At least one character must be alphabetic.

Qualifiers

/ADAPTER=(TYPE=adapter,
ADDRESS=address)

The adapter is the type of Ethernet adapter in the workstation. You must specify one of the following:

Adapter	Compatible Client Version
DEMCA	2.2, 3.0
DEPCA	2.2, 3.0
DEPCA_H	4.0
DEPCA_S	4.0
LANCE	2.2
NI5010	2.2, 3.0
3C501	2.2, 3.0
3C503	2.2, 3.0, 4.0
3C523	2.2, 3.0, 4.0

Only these adapters can be used for remote boot.

The hardware address of the Ethernet controller installed in the workstation is used when creating the boot disk. The hardware address is 6 pairs of hexadecimal digits separated by dashes (-).

/CLIENT_VERSION=pcsa-version

Use this qualifier if the client version is different from the server version. To specify a PCSA version, enter nm. For example, to specify 3.0, enter 30.

/COMMENT=string   Is a comment used to describe the
                                   workstation. The comment is displayed
                                   when you use the SHOW WORKSTATIONS
                                   command.

/DEVICE=name   Is the VAX network controller that should
                                   be used to service a workstation's boot
                                   request.

Example

You want to change the Ethernet address of the workstation BRONTE
and specify the type as DEPCA. Enter the following command:

```
PCSA_MANAGER>  MODIFY WORKSTATION BRONTE -
_PCSA_MANAGER>  /ADAPTER=(TYPE=DEPCA,ADDRESS=08-00-2B-0D-3D-17)
```

Related Commands

None

Related Menu Item

None

MOUNT DISK

Purpose

This command makes an existing virtual disk available as a disk service to the client workstation.

Command Support

This command runs under the supported transport.

Guidelines

Before you can mount a virtual disk, you must create it. To create a virtual disk. see the CREATE DISK command.

To use this command, you need:

- Write access to the disk

- Either of the following:

  — OPER and SYSPRV privileges

  — Privilege to mount a virtual disk. To receive this privilege, use the SET DISK_SERVER CHARACTERISTICS command with the /USER_MOUNT qualifier.

Format

MOUNT DISK file-spec [service]
$$\left[\begin{array}{l} \text{/ACCESS=option} \\ \text{/CLUSTER[=(node,..)]} \\ \text{/CONNECTIONS=n} \\ \text{/PASSWORD[=password]} \\ \text{/[NO]PERMANENT} \\ \text{/RATING=n} \\ \text{/TYPE=class} \end{array} \right]$$

Parameters

file-spec   Is the file specification by which the virtual disk is known. The
                 default file extension for a virtual disk is .DSK. To specify the
                 directory for the virtual disk, you can:

                 Explicitly state the directory for the virtual disk in the file
                 specification.

                 Use the /TYPE qualifier to select the type of virtual disk. The
                 PCSA Manager then locates the virtual disk in the default
                 directory for the specified virtual disk type.

service   Is the 1- to 25-character name by which the service is known to
                 the network. Do not include spaces in the service name. If you
                 omit this qualifier, the service name is the file name portion of
                 the file specification.

Qualifiers

/ACCESS=option   Is the type of access allowed to the service. The
                            options are:

                            READ   Multiple workstations can use the
                                      service for read-only access.

                            WRITE   A single workstation can use the
                                      service for read and write access.

                            If you specify /ACCESS=WRITE, do not specify
                            the /CONNECTIONS qualifier; write access limits
                            the number of connections to one. The default is
                            /ACCESS=READ.

/CLUSTER[=(node,...)]   Mounts the service on all nodes or on the specified
                            node(s) in a cluster. If you omit this qualifier, the
                            service is mounted only on the current node.

/CONNECTIONS=n   Defines the maximum connections that can be
                            made to the service. If this qualifier is omitted,
                            then the default is 30 connections. Do not specify
                            this qualifier if you specified /ACCESS=WRITE.

/PASSWORD[=password]   Restricts the service to authorized users.
                           The password can be 1 to 31 characters. If
                           /PERMANENT is specified, the server stores the
                           password in the service database. On subsequent
                           restarts, the disk server offers the service with
                           this password. If you omit this qualifier, the server
                           allows unrestricted access to the service. If you
                           omit a value, you are prompted for a password and
                           verification. The password is not echoed on the
                           terminal.

/[NO]PERMANENT   Specifies whether to permanently mount
                           (/PERMANENT) the specified service or mount it
                           just this time (/NOPERMANENT). The disk server
                           automatically remounts only the permanently
                           mounted services upon startup. /NOPERMANENT
                           is the default qualifier.

/RATING=n   Is a numerical value that assigns a priority to a
                           disk service. Use a rating to differentiate disk
                           services with the same name. When several
                           services have the same name, the disk service
                           with the highest rating is used. When identically
                           name services have equal rating, requests for the
                           services are dynamically distributed, that is, the
                           service that is most accessible at the time of the
                           request is used. The range is 1 to 65535. The
                           default value is 1. A rating of 1 is the lowest
                           rating and a rating of 65535 is the highest rating.

/TYPE=class   Determines the default directory for the virtual
                           disk file and the service type displayed with the
                           SHOW DISK_SERVER SERVICES command.
                           There is one default directory for each type of
                           virtual disk. Each directory is represented by a
                           logical. The types of virtual disks and the logical
                           that represents each type's default directory are:

                           SYSTEM   LAD$SYSTEM_DISKS

                           BOOT   LAD$BOOT_DISKS

                           APPLICATION   LAD$APPLICATION_DISKS

                           USER   No logical; the virtual disk is in
                                         current directory or it is stated in
                                         the file specification.

                           The default is /TYPE=USER.

NOTE
If you change the location that any of the logicals (LAD$SYSTEM_DISKS,
LAD$BOOT_DISKS, or LAD$APPLICATION_DISKS) point to, and a disk
was mounted with the previous logical, then you need to use the full file
specification for the virtual disk on any subsequent mounts.

Example 1

You want to mount the virtual disk JONES.DSK as the read-only service
MYDISK. You also want to limit access to a maximum of 30 users. Enter
the following command:

```
PCSA_MANAGER>  MOUNT DISK JONES MYDISK /CONNECTIONS=30
%PCSA-I-DISKMOUNTED, DUA1:[JONES]JONES.DSK;1 mounted
%PCSA-I-MOUNTINFO, service name=MYDISK, server node=LETTER
```

Example 2

You want to mount permanently the virtual disk LOTUS.DSK on all
nodes in the cluster. Enter the following command:

```
PCSA_MANAGER>  MOUNT DISK LOTUS /TYPE=APPLICATION -
_PCSA_MANAGER>  /CLUSTER /PERMANENT
%PCSA-I-DISKMOUNTED, SYS$SYSDEVICE:[PCSA.LAD]LOTUS.DIR;1 mounted
%PCSA-I-MOUNTINFO, service name=LOTUS, server node=YELLOW

%PCSA-I-DISKMOUNTED, SYS$SYSDEVICE:[PCSA.LAD]LOTUS.DIR;1 mounted
%PCSA-I-MOUNTINFO, service name=LOTUS, server node=GREEN

%PCSA-I-DISKMOUNTED, SYS$SYSDEVICE:[PCSA.LAD]LOTUS.DIR;1 mounted
%PCSA-I-MOUNTINFO, service name=LOTUS, server node=VIOLET
```

Related Commands

DISMOUNT DISK

Related Menu Item

```
Service Options
  Modify Disk Service
    Mount Disk
```

REMOVE CLIENT_OS

Purpose

This command deletes a client operating system from the server.

You should modify workstation profiles for any workstations set up to use the client operating system you are deleting.

Command Support

This command runs under the supported transport.

Privileges

You need LOG_IO, OPER, PHY_IO, SYSPRV and VOLPRO privileges to use this command.

Format

REMOVE CLIENT_OS system-id /CLIENT_VERSION=nm

Parameters

system-id   The system service identification is used as a subdirectory in the system container file to contain the operating system files. It should follow the system identification convention of xxSYSDnm, where xx is the system type (VX for VAXmate, IS for IBM, CQ for COMPAQ), n is the DOS major version number, and m is the DOS minor number. Thus, VXSYSD33 would be the VAXmate MS-DOS 3.3 subdirectory on the system service.

Qualifiers

/CLIENT_VERSION=nm   Is part of the name of the logical used for the system container file. For example, to delete a DOS from the PCSA Version 3.0 system service, specify /CLIENT_VERSION=30. The /CLIENT_VERSION is used with PCSA$SYSTEM_ CONTAINER_Vxx to determine which system container file contains the DOS to be deleted.

Use DOSLOAD to delete a Version 4.0 DOS.

Example

You want to remove the operating system ISSYSD33 from the server.
Enter the following command:

```
PCSA_MANAGER> REM CLIENT_OS ISSYSD33 /CLIENT_VERSION=30
```

Related Commands

None

Related Menu Item

None

REMOVE GROUP

Purpose

This command removes a group and the members in the group.

Command Support

This command runs under the supported transport.

Guidelines

This command removes the associated group access to all services.

You cannot remove the group PUBLIC.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

REMOVE GROUP groupname

Parameters

groupname   Is the name of the group you want to remove.

Qualifiers

None

Example

You want to remove the group WRITERS. Enter the following command:

```
PCSA_MANAGER>  REMOVE GROUP WRITERS
%PCSA-I-REMGROUPMEM, member USER1 removed from group WRITERS
%PCSA-I-REMGROUPMEM, member USER2 removed from group WRITERS
%PCSA-I-REMGROUPMEM, member USER3 removed from group WRITERS
%PCSA-I-REMGROUPMEMSUMM, 3 members successfully removed, 0 members not removed

%PCSA-I-GROUPDEL, deleted group WRITERS
```

Related Commands

None

Related Menu Item

```
User Options
  Group Options
    Delete a Group
```

REMOVE MEMBER

Purpose

This command removes a member or members from a group.

Command Support

This command runs under the supported transport.

Guidelines

You cannot remove a member or members from the group PUBLIC.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

REMOVE MEMBER memberlist | * groupname | *

Parameters

memberlist   Is a list of user names separated by commas. Each user name must be a valid user authorization file (UAF) entry.

If you specify an asterisk (*), this command removes all members from the specified group.

groupname   Is the name of the group where you want to add members.

Qualifiers

None

Example

You want to remove USER1 from the group WRITERS. Enter the following command:

```
PCSA_MANAGER>  REMOVE MEMBER USER1 WRITERS
%PCSA-I-REMGROUPMEM, member USER1 removed from group WRITERS
%PCSA-I-REMGROUPMEMSUMM, 1 member successfully removed, 0 members not removed
```

Related Commands

None

Related Menu Item

```
User Options
  Group Options
    Remove Members from a Group
```

REMOVE NODE

Purpose

This command removes a workstation or server from the DECnet database.

Command Support

This command runs under the supported transport.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

REMOVE NODE nodename | node-address

Parameters

nodename   Is the DECnet node name of one to six alphanumeric characters. At least one character must be alphabetic. Specify either the nodename or the node-address.

node-address   Is the DECnet node address of the workstation. The node address consists of the area number and the local number, in the format xx.xxx. The area number must be between 1 and 63, and the local number must be between 0 and 1023, inclusive. Although the NCP program accepts node addresses without a local area number, the PCSA Manager menu accepts only complete node numbers.

Qualifiers

None

Example

You want to remove the node BRONTE from the DECnet database. Enter the following command:

```
PCSA_MANAGER> REMOVE NODE BRONTE
%PCSA-I-ADDNODE, removing node BRONTE from DECnet database on all cluster nodes
```

Related Commands

None

Related Menu Item

```
Workstation Options
  Node Registration Options
    Delete a Node
```

REMOVE SERVICE

Purpose

This command removes a file server directory or printer service entry
from the service database. The PCSA Manager:

- Denies all users access to the service

- Disconnects any clients currently connected to the service

- Optionally deletes all files held by the service

Command Support

This command runs under the supported transport.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

REMOVE SERVICE servicename [/[NO]KEEP]

Parameters

servicename   Is the name of the service to be removed.

Qualifiers

/[NO]KEEP   Specifies whether the PCSA Manager should delete or keep the
                   root directory, any subdirectories, and files that the service holds.
                   The default is /KEEP. It is recommended that you back up the
                   directory and files before deleting them.

                   If you do not explicitly specify either /KEEP or /NOKEEP, you
                   are prompted to either keep or delete the files.

CAUTION
If the root directory is [000000] when you use the /NOKEEP qualifier,
then the entire disk is deleted. Make sure you know what the root
directory is before choosing the /NOKEEP qualifier.

Example

You want to remove the service LOTUS123 from the service database and delete the associated directory and all files in the directory. Enter the following command:

```
PCSA_MANAGER>  REMOVE SERVICE LOTUS123

Delete all files in SYS$SYSDEVICE:[PCSA.LOTUS123...] [YES or NO] (NO):  Y
%PCSA-I-FILDEL, SYS$SYSDEVICE:[PCSA]LOTUS123.DIR;1 deleted
%PCSA-I-TOTFILDEL, 1 file deleted, 0 files not deleted
%PSCA-I-SERREMOVED, service "LOTUS123" removed
```

Related Commands

None

Related Menu Item

```
Service Options
  Delete Service
```

REMOVE TEMPLATE

Purpose

This command removes a template for a network key disk.

Command Support

This command runs under the supported transport.

Privileges

You need BYPASS, OPER, and SYSPRV privileges to use this command.

Format

REMOVE TEMPLATE template-name

Parameters

template-
name

Is the name of the template used to create a network key disk given in the ADD TEMPLATE command. Do not enter a file name with an extension. The template name can be up to 39 characters. You can list all the template names by running the SHOW TEMPLATES command.

Qualifiers

None

Example

You want to remove the template GAPPER from the template database. Enter the following command:

```
PCSA_MANAGER>  REMOVE TEMPLATE GAPPER
```

Related Commands

None

Related Menu Item

None

REMOVE USER

Purpose

This command removes the user's UAF record and optionally deletes the files in the user's directory.

Command Support

This command runs under the supported transport.

Privileges

You need BYPASS, OPER, and SYSPRV privileges to use this command.

Format

REMOVE USER username [/[NO]KEEP]

Parameters

username   Is the 1- to 12-alphanumeric character name used for the user account name.

Qualifiers

/[NO]KEEP   Specifies whether the PCSA Manager should delete or keep the root directory, any subdirectories, and files of the user. The default is /NOKEEP. It is recommended that you back up the directory and files before deleting them.

If you omit this qualifier, you will be prompted to either keep or delete the files.

Example

You want to remove the account GAPPER and the files in the directory. Enter the following command

```
PCSA_MANAGER>  REMOVE USER GAPPER
```

Related Commands

None

Related Menu Item

User Options
  Delete a User

REMOVE WORKSTATION

Purpose

This command removes a workstation, dismounts and deletes the boot disk, and removes the workstation's entries from the NCP and remote boot databases.

Command Support

This command runs under the supported transport.

Privileges

You need BYPASS, OPER, and SYSPRV privileges to use this command.

Format

REMOVE WORKSTATION nodename

Parameters

nodename   Is the DECnet node name of one to six alphanumeric characters.
                At least one character must be alphabetic.

Qualifiers

None

Example

You want to remove the workstation WINONE, delete network key disk, and remove from the NCP and remote boot databases. Enter the following command:

```
PCSA_MANAGER>  REMOVE WORKSTATION WINONE
```

Related Commands

None

Related Menu Item

Workstation Options
  Delete a Node

SET DISK_SERVER CHARACTERISTICS

Purpose

This command defines or changes the characteristics of the disk server.

Command Support

This command runs under the supported transport.

Guidelines

Place this command in the LAD_STARTUP.COM file to set characteristics each time the disk server is started.

Privileges

You need OPER, SYSNAM, and SYSPRV privileges to use this command.

Format

SET DISK_SERVER CHARACTERISTICS $\left[\begin{array}{l} \text{/TIMEOUT=seconds} \\ \text{/[NO]USER\_MOUNT} \end{array}\right]$

Parameters

None

Qualifiers

/[NO]USER_MOUNT   Determines whether non-privileged users can perform the PCSA Manager commands for virtual disk services. If you specify /NOUSER_MOUNT, users without OPER and SYSPRV may not perform the following commands:

CREATE DISK

DELETE DISK

DISMOUNT DISK

MODIFY DISK

MOUNT DISK

SET DISK_SERVER SERVICE

/USER_MOUNT is the default, which means that any user with write access to a virtual disk can perform the above commands for that disk.

/TIMEOUT=seconds   Determines the number of seconds the PCSA Manager waits for a response from the disk server. By default, the PCSA Manager waits 90 seconds. The range is 5 seconds through 65535 seconds.

If the time expires, the PCSA Manager displays a device timeout message. This situation can occur if the VAX computer is heavily loaded and contains many mounted virtual disks. If you see the timeout message, increase the timeout value with this qualifier.

Example

You want only privileged users to create, delete, dismount, modify, mount, or set a virtual disk. Enter the following command:

```
PCSA_MANAGER>  SET DISK_SERVER CHARACTERISTICS /NOUSER MOUNT
%PCSA-I-CHARSET, server characteristics set
```

Related Commands

None

Related Menu Item

None

SET DISK_SERVER SERVICE

Purpose

This command changes the characteristics of a mounted virtual disk.

Command Support

This command runs under the supported transport.

Guidelines

You must specify at least one qualifier with the SET DISK_SERVER SERVICE command.

To use this command, the virtual disk must be mounted. Use the SHOW DISK_SERVER SERVICES command to be sure the disk is mounted.

Privileges

To use this command, you must have either write access to the virtual disk file or OPER and SYSPRV privileges.

Format

SET DISK_SERVER SERVICE service
```
[ /CONNECTIONS=n | NO_LIMIT ]
[ /[NO]PASSWORD[=password]    ]
[ /RATING=n                    ]
```

Parameters

service   Is the name of the service being modified.

Qualifiers

/CONNECTIONS=n | NO_LIMIT	Modifies the maximum number of connections that can be made to a read-only service. n is the maximum number of connections that can be issued from all clients to this service. If you specify NO_LIMIT, any number of connections to the service can be made. PCSA Manager ignores this qualifier if the service is mounted for read/write access.
/[NO]PASSWORD[=password]	Specifies or modifies the service's password. If the service currently has a password, specifying /NOPASSWORD removes the password.
	If you specify /PASSWORD with no password value, the PCSA Manager prompts you for a password and verification. When you type them at the prompts, the characters are not displayed on the screen. If you omit this qualifier, the password is not changed.
/RATING=n	Is a value, from 0 to 65535, for the service rating. The default value is 0. For more information on the service rating, see the MOUNT DISK command.

Example

You want to change the number of connections users can make and the password for the service LOTUS. Enter the following command:

```
PCSA_MANAGER>  SET DISK_SERVER SERVICE LOTUS -
_PCSA_MANAGER>  /CONNECTIONS=2 /PASSWORD
Password:
Verification:
%PCSA-I-SERVICESET, service LOTUS set
```

Related Commands

None

Related Menu Item

None

SET FILE_SERVER CHARACTERISTICS

Purpose

This command defines or changes the characteristics of the file server. You must specify at least one qualifier with the SET FILE_SERVER CHARACTERISTICS command.

Command Support

This command runs under the supported transport.

Guidelines

This command is in the default PCFS_STARTUP.COM file. You can edit this file and change this command if you want to set characteristics each time the file server is started. Or you can issue this command interactively.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

SET FILE_SERVER CHARACTERISTICS
[/CONNECTIONS=(option[,...])
  /[NO]DEFAULT_ACCOUNT[=name]
  /FILE_LIMIT=(option[,...])
  /SESSION_LIMIT=limit]

Parameters

None

Qualifiers

/CONNECTIONS=(option[,...])

Defines the maximum number of service connections that the file server can establish in total or on a per user basis. The two options are:

TOTAL=keyword, which limits the maximum number of service connections that can be established for all workstations. Enter either an integer value or NO_LIMIT for the keyword. If keyword is NO_LIMIT, then the number of service connections that can be established to the file server is unlimited.

SESSION=keyword, which limits the maximum number of service connections that can be established for any one workstation. Enter an integer value or NO_LIMIT for the keyword. If keyword is NO_LIMIT, then the number of service connections that can be established by any one workstation is unlimited.

The default values, which are set as part of the installation procedure, are TOTAL=NO_LIMIT and SESSION=NO_LIMIT.

/[NO]DEFAULT_ACCOUNT[=name]

Is the account in the user authorization file (UAF) that the file server uses for access control when a workstation connects and passes no access control information. The default account is PCFS$ACCOUNT, which is created at installation. You can change the account name using this qualifier.

To disable the file server from using a default account to connect users, specify /NODEFAULT_ACCOUNT. This will force users to enter a valid user name and password when making file service connections.

/FILE_LIMIT=(option[,...])

Defines the maximum number of files that the file server can open in total or on a per user basis. The two options are:

TOTAL=keyword, which limits the maximum number of files that the file server can open for all workstations. Enter an integer or NO_LIMIT for the keyword. If keyword is NO_LIMIT, the maximum number of files is unlimited. For example, to specify a total file limit of 10, type /FILE_LIMIT=(TOTAL=10).

SESSION=keyword, which limits the maximum number of files that the file server can open for one workstation. Enter an integer or NO_LIMIT for the keyword. If keyword is NO_LIMIT, the maximum number of files is unlimited. For example, to specify a file limit per session of 10, type /FILE_LIMIT=(SESSION=10).

/SESSION_LIMIT=limit

Defines the maximum number of DECnet sessions (or workstations) the file server supports. For limit, enter an integer or NO_LIMIT. If limit is NO_LIMIT, then the maximum is determined by local host DECnet configuration parameters.

Example 1

You want to set the maximum number of service connections for the file server to 10 connections. Enter the following command:

```
PCSA_MANAGER> SET FILE_SERVER CHARACTERISTICS -
_PCSA_MANAGER> /CONNECTIONS=(TOTAL=10)
%PCSA-I-CHARSET, server characteristics set
```

Example 2

You want to change the account that the file server checks for access
control information when the workstation does not specify it. Enter the
following command:

```
PCSA_MANAGER>  SET FILE_SERVER CHARACTERISTICS -
_PCSA_MANAGER>  /DEFAULT_ACCOUNT=FSERVE
%PCSA-I-CHARSET, server characteristics set
```

Example 3

You want to change the maximum number of files that the file server can
open in total and per workstation, and the maximum number of clients
that can connect to the file server. Enter the following command:

```
PCSA_MANAGER>  SET FILE_SERVER CHARACTERISTICS -
_PCSA_MANAGER>  /FILE_LIMIT=(TOTAL=20, SESSION=10) -
_PCSA_MANAGER>  /SESSION_LIMIT=10
%PCSA-I-CHARSET, server characteristics set
```

Related Commands

None

Related Menu Item

None

SET FILE_SERVER SERVICE

Purpose

This command defines or changes the characteristics of a file or print service. You must specify at least one qualifier with the SET FILE_ SERVER SERVICE command.

Command Support

This command runs under the supported transport.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

SET FILE_SERVER SERVICE service
⌈ /ACTIVE | /PERMANENT   ⌉
  /ATTRIBUTES=type
  /CONNECTIONS=n | NO_LIMIT
  /FILE_LENGTH=ACTUAL | ESTIMATED
⌊ /RMS_PROTECTION=mask   ⌋

Parameters

service   Is the name of the service being modified.

Qualifiers

/ACTIVE | /PERMANENT   Specifies whether to modify the permanent file
                              server values stored in the service database
                              (/PERMANENT) or the values the file server is
                              currently using (/ACTIVE). /ACTIVE is the default
                              qualifier.

/ATTRIBUTES=type   Are the default file attributes used by the file
                                    server when creating a file for a file service. The
                                    file attribute values are:

                                    STREAM, which are RMS stream files

                                    SEQUENTIAL_FIXED, which are RMS sequential
                                    fixed, 512-byte record files

                                    The default value is /ATTRIBUTES=STREAM.

                                    Use this qualifier only when the files are used
                                    by an application running on both a workstation
                                    and a VAX computer, and when the application
                                    requires sequential fixed, 512-byte record files on
                                    the VAX computer.

                                    For example, to use the same files with WPS-
                                    PLUS/PC and WPS-PLUS/VMS, specify this
                                    qualifier so that the file server creates sequential
                                    fixed, 512-byte record files that the VAX
                                    application can use.

                                    This qualifier overrides the /ATTRIBUTES
                                    qualifier specified in the ADD SERVICE
                                    commands. This qualifier is ignored for print
                                    services.

/CONNECTIONS=n | NO_   Defines the maximum number of service
LIMIT   connections that can be made to the service. For
                                    limit, enter an integer value or NO_LIMIT, which
                                    means there is no limit to the number of service
                                    connections that can be established.

/FILE_LENGTH=ACTUAL   Specifies whether the file server should determine
| ESTIMATED   an actual or estimated file length for non-stream
                                    files:

                                    ACTUAL   Tells the file server to determine
                                                  the actual file length in bytes.

                                                  Use the /FILE_LENGTH=ACTUAL
                                                  qualifier with caution because
                                                  it can degrade file server
                                                  performance.

                                    ESTIMATED   Tells the file server to estimate
                                                  the file length based on the end-
                                                  of-file pointer. ESTIMATED is the
                                                  default.

                              This qualifier is ignored for print services.

/RMS_PROTECTION=mask   Establishes a default RMS protection mask for
                              files created with this service. You can modify
                              this protection when you grant a user or group
                              access to the service. The default protection mask
                              is SYSTEM:RWED, OWNER:RWED, GROUP:,
                              WORLD:.

                              After you set the RMS protection, that protection
                              affects all new files that are created in the file
                              service.

Example 1

You want to change the value in the file server database for the maximum
number of connections. Enter the following command:

```
PCSA_MANAGER>  SET FILE_SERVER SERVICE VXSYS -
_PCSA_MANAGER>  /CONNECTIONS=10 /PERMANENT
%PCSA-I-SERVICESET, service VXSYS set
```

Example 2

You want to change the value that the file server currently uses for the
maximum number of connections. Enter the following command:

```
PCSA_MANAGER>  SET FILE_SERVER SERVICE /CONNECTIONS=10 /ACTIVE
%PCSA-I-SERVICESET, service VXSYS set
```

Related Commands

None

Related Menu Item

None

SHOW CLIENT_OS

Purpose

This command displays a list of currently configured client operating systems.

Command Support

This command runs under the supported transport.

Privileges

You do not need privileges to use this command.

Format

SHOW CLIENT_OS [/CLIENT_VERSION=nm]

Parameters

None

Qualifiers

/CLIENT_VERSION=nm   You can list the client operating systems by client version. To list Version 4.0, specify 40 for client version. If you omit the client version, the most recent version is displayed.

Example

You want to display client operating systems. Enter the following command:

```
PCSA_MANAGER>  SHOW CLIENT_OS/CLIENT_VERSION=40

Client Operating Systems:

System          VAXmate     Version    Comment
------          -------     -------    -------
ISSYSD33        No          33         IBM DOS V3.3
```

NOTE
What is displayed on the screen varies with different client operating system versions.

Related Commands

None

Related Menu Item

```
Workstation Options
  Remote Boot Workstation Options
    List Client Operating Systems
```

SHOW DISK_SERVER CHARACTERISTICS

Purpose

This command displays the current characteristics of the disk server. The display includes the current disk server timeout value (in seconds) and whether non-privileged users can create, delete, dismount, modify, mount, or set virtual disks.

Command Support

This command runs under the supported transport.

Guidelines

To change the disk server characteristics, use the SET DISK_SERVER CHARACTERISTICS command.

Privileges

You do not need privileges to use this command.

Format

SHOW DISK_SERVER CHARACTERISTICS

Parameters

None

Qualifiers

None

Example

You want to know whether non-privileged users can create, delete, dismount, modify, mount, or set virtual disks. Enter the following command:

```
PCSA_MANAGER>  SHOW DISK_SERVER CHARACTERISTICS

Disk Server characteristics:

Disk Server request timeout: 30
All users may perform virtual disk functions.
```

Related Commands

None

Related Menu Item

None

SHOW DISK_SERVER CONNECTIONS

Purpose

This command displays the current connection information for the disk server.

Command Support

This command runs under the supported transport.

Guidelines

The information displayed includes:

- The workstation name.

- The service name.

- The access that the workstation has to the services. Access can be read-only (RO) or read-write (RW).

- The virtual disk name, which is also known as a *container* file name.

Privileges

You do not need privileges to use this command.

Format

SHOW DISK_SERVER CONNECTIONS $\left[\begin{array}{l} \text{/CLIENT=name} \\ \text{/SERVICE=name} \end{array} \right]$

Parameters

None

Qualifiers

/CLIENT=name   Restricts the display to the connections for the specified workstation.

/SERVICE=name   Restricts the display to the connections for the specified service name.

Example 1

You want to display the connection information for node FLUX to the service PCSA$DOS_SYSTEM_V30. Enter the following command:

```
PCSA_MANAGER>  SHOW DISK_SERVER CONNECTIONS -
_PCSA_MANAGER>  /CLIENT=FLUX /SERVICE=PCSA$DOS_SYSTEM_V30

Disk server connections:

Client  Service name          Acc  Container File
------  ------------          ---  ------------------------------------
FLUX    PCSA$DOS_SYSTEM_V30   RO   DUA0:[LADDIR]PCSA$DOS_SYSTEM_V30.DSK
```

Example 2

You want to display connection information for all workstations to the service VXSYS. Enter the following command:

```
PCSA_MANAGER>  SHOW DISK_SERVER CONNECTIONS/SERVICE=PCSA$DOS_SYSTEM_V30

Disk server connections:

Client  Service name          Acc  Container File
------  ------------          ---  -----------------------
DANY    PCSA$DOS_SYSTEM_V30   RO   DUA0:[LADDIR]VXSYS.DSK
FLUX    PCSA$DOS_SYSTEM_V30   RO   DUA0:[LADDIR]VXSYS.DSK
SKYBLU  PCSA$DOS_SYSTEM_V30   RO   DUA0:[LADDIR]VXSYS.DSK
LAVERN  PCSA$DOS_SYSTEM_V30   RO   DUA0:[LADDIR]VXSYS.DSK
```

Related Commands

None

Related Menu Item

None

SHOW DISK_SERVER COUNTERS

Purpose

This command displays the current disk server counters. The disk server maintains counters for the disk server cache, services, and workstations.

Command Support

This command runs under the supported transport.

Guidelines

If you specify the SHOW DISK_SERVER COUNTERS command with no qualifiers, the disk server displays all counters.

Privileges

You do not need privileges to use this command.

Format

SHOW DISK_SERVER COUNTERS $\begin{bmatrix} \text{/CACHE} \\ \text{/CLIENT[=name]} \\ \text{/SERVICE[=name]} \end{bmatrix}$

Parameters

None

Qualifiers

/CACHE   Displays the current cache counters, which include:

                          The current cache size

The number of cache hits (the number of blocks not read due to the cache) and the cache hit rate. If the disk server performance decreases and the cache hit rate is low (less than 50%), you can increase the cache size until you see an increase in the cache hit rate. See the START DISK_SERVER CONNECTIONS command.

The number of read requests and blocks written

The number of write requests and blocks written

/CLIENT[=name] Displays the client counters for all workstations or the specified workstation. The counters include:

The service name

The client name

The number of read requests and blocks read

The number of write requests and blocks written

/SERVICE[=name] Displays the service counters for all services or the specified service. Use this qualifier and the /CLIENT qualifier to restrict the display to client counters for a specified service. The counters include:

The service name

The current number of users of the service

The number of read requests and blocks read

The number of write requests and blocks written

Example 1

You want to display the client counters for the workstation LAVERN using the service PCSA$DOS_SYSTEM_V30. Enter the following command:

```
PCSA_MANAGER>  SHOW DISK_SERVER COUNTERS -
_PCSA_MANAGER>  /CLIENT=LAVERN /SERVICE=PCSA$DOS_SYSTEM_V30

Disk server client counters:

Service Name          Client   Read Reqs/Blocks   Writes Reqs/Blocks
------------          ------   ----------------   ------------------
PCSA$DOS_SYSTEM_V30   LAVERN        776/2211             0/0
```

Example 2

You want to display the cache counters for the disk server. Enter the following command:

```
PCSA_MANAGER>  SHOW DISK_SERVER COUNTERS /CACHE

Disk server cache counters:

Cache size  Cache hits/Rate %  Read Reqs/Blocks  Write Reqs/Blocks
----------  -----------------  ----------------  -----------------
       512      1005799/73        221021/1372703     303363/353698
```

Example 3

You want to display the service counters for the service VXSYS. Enter the following command:

```
PCSA_MANAGER>  SHOW DISK_SERVER COUNTERS/SERVICE=PCSA$DOS_SYSTEM_V30

Disk server service counters:

Service name          Users   Read Reqs/Blocks   Writes Reqs/Blocks
------------          -----   ----------------   ------------------
PCSA$DOS_SYSTEM_V30     3        1208/4176              0/0
```

Related Commands

None

Related Menu Item

None

SHOW DISK_SERVER SERVICES

Purpose

This command displays information about a disk service. If you type this command with no qualifiers, the PCSA Manager displays all services available on the current node.

Command Support

This command runs under the supported transport.

Guidelines

The PCSA Manager displays the following information about each service:

* The service name. If the service is boot service, the PCSA Manager displays the service name, which is the workstation's Ethernet address, and the workstation's DECnet node name (in parentheses).

* The type of service. See the /TYPE qualifier described below for more information on the types of services.

* The node name of the server offering the service.

* The number of connections that can be established to the service. You can change the number of connections with the SET DISK_SERVER SERVICES command.

* The current number of users of the service. In a VAXcluster, this value is only displayed for services mounted on the current node.

* The access the user has to the service. Access can be read-only (RO) or read-write (RW).

* The rating assigned to the service. You can change the rating with the SET DISK_SERVER SERVICE command.

* The mount status of the service. The status can be:

  — MNT (mounted)

  — MNT PERM (mounted permanent)

  — DISMNT PERM (dismounted permanent)

— PEND (pending), which means that the request to mount the disk is pending because the disk is already mounted on another node in the cluster with conflicting access. For example, the status is PEND if a disk is mounted read-write and you attempt to mount it read-only or read-write on another node in the cluster.

— PEND PERM (pending permanent), which means the same as PEND, except that the virtual disk is a permanent entry in the service database.

• The virtual disk (container file) name, if you specify the /FULL qualifier.

Privileges

You do not need privileges to use this command.

Format

SHOW DISK_SERVER SERVICES $\left[\begin{array}{l} \text{/CLUSTER[=(node,...)]} \\ \text{/[NO]FULL} \\ \text{/SERVICE=name} \\ \text{/TYPE=(class[,..])} \end{array}\right]$

Parameters

None

Qualifiers

/CLUSTER=[(node,...)]   Displays service information for all nodes or the specified node(s) in a cluster. If you omit this qualifier, the PCSA Manager displays information for services available on the current node.

/[NO]FULL   Includes the virtual disk file specification in the information display. If you specify /NOFULL, which is the default, the file specification is not included.

/SERVICE=name   Is the service for which information is displayed.

/TYPE=class[,..]   Specifies whether or not to display information for the
                                specified service class. If you omit this qualifier, the
                                PCSA Manager displays information for all services.
                                The classes are:

            [NO]ALL   Information for all services

            [NO]APPLICATION   Information for application
                                    services

            [NO]BOOT[:client]   Information all boot services or
                                    a specified boot service

            [NO]SYSTEM   Information for system services

            [NO]USER   Information for user services

Example 1

You want to display information about all services offered on a cluster.
Enter the following command:

```
PCSA_MANAGER> SHOW DISK_SERVER SERVICES /CLUSTER

Disk server services:

Service name  Type  Server  Limit  Users  Acc  Rating  Status
------------  ----  ------  -----  -----  ---  ------  ------
08-00-2B-02-78-78  (GREEN)
              BOOT  NODE1     1            RW      1    MNT PERM
08-00-2B-03-02-E4  (YELLOW)
              BOOT  NODE2     1      0     RW      1    MNT PERM
JOHN          USER  NODE1     1            RW      1    MNT PERM
MARY          USER  NODE1     1            RW      1    MNT PERM
DENNIS        USER  NODE2     1      1     RW      1    MNT PERM
SANDY         USER  NODE1     1            RW      1    MNT PERM
JAMES         USER  NODE1     1            RW      1    MNT PERM
PATTY         USER  NODE1     1            RW      1    MNT PERM
ISSYS         SYST  NODE2   100      0     RO      1    MNT PERM
TONY          USER  NODE1     1            RW      1    MNT PERM
MARK          USER  NODE1     1            RW      1    MNT PERM
JOAN          USER  NODE1     1            RW      1    MNT PERM
PAUL          USER  NODE1     1            RW      1    MNT PERM
TERESA        USER  NODE1     1            RW      1    MNT PERM
SUSAN         USER  NODE2     1      0     RW     44    MNT PERM
VXSYS         SYST  NODE2   100      4     RO      1    MNT PERM
```

Example 2

You want to display information about boot services (network key disks).
Enter the following command:

```
PCSA_MANAGER>  SHOW DISK_SERVER SERVICES/TYPE=BOOT

Disk server services:

Service name  Type   Server  Limit  Users  Acc  Rating  Status
------------  ----   ------  -----  -----  ---  ------  --------
08-00-2B-02-78-78 (GREEN)
              BOOT   NODE1     1            RW       1  MNT PERM
08-00-2B-03-02-E4 (YELLOW)
              BOOT   NODE2     1            RW       1  MNT PERM
```

Example 3

You want to display information about all services except boot services.
Enter the following command:

```
PCSA_MANAGER>  SHOW DISK_SERVER SERVICES/TYPE=NOBOOT

Disk server services:

Service name  Type   Server  Limit  Users  Acc  Rating  Status
------------  ----   ------  -----  -----  ---  ------  ------
JOHN          USER   NODE1     1           RW        1  MNT PERM
MARY          USER   NODE1     1           RW        1  MNT PERM
DENNIS        USER   NODE2     1      1     RW        1  MNT PERM
SANDY         USER   NODE1     1           RW        1  MNT PERM
JAMES         USER   NODE1     1           RW        1  MNT PERM
PATTY         USER   NODE1     1           RW        1  MNT PERM
ISSYS         SYST   NODE2   100      0     RO        1  MNT PERM
TONY          USER   NODE1     1           RW        1  MNT PERM
MARK          USER   NODE1     1           RW        1  MNT PERM
JOAN          USER   NODE1     1           RW        1  MNT PERM
PAUL          USER   NODE1     1           RW        1  MNT PERM
TERESA        USER   NODE1     1           RW        1  MNT PERM
SUSAN         USER   NODE2     1      0     RW       44  MNT PERM
VXSYS         SYST   NODE2   100      4     RO        1  MNT PERM
```

Related Commands

None

Related Menu Item

None

SHOW FILE_SERVER CHARACTERISTICS

Purpose

This command displays the current characteristics of the file server.

Command Support

This command runs under the supported transport.

Guidelines

To change a file server characteristic, use the SET FILE_SERVER CHARACTERISTICS command.

Privileges

You do not need privileges to use this command.

Format

SHOW FILE_SERVER CHARACTERISTICS

Parameters

None

Qualifiers

None

Example

You want to display the current file server characteristics. Enter the following command:

```
PCSA_MANAGER>  SHOW FILE_SERVER CHARACTERISTICS

File Server characteristics:

Total server wide sessions            : NO LIMIT
Total server wide connections         : NO LIMIT
Total connections per session         : NO LIMIT
Total server wide open files          : NO LIMIT
Total open files per session          : NO LIMIT
File server buffer size in Kbyte      :        8
Open file buffer cache enabled        :     TRUE
File cache size in pages              :     1024
Server default account                : PCFS$ACCOUNT
```

Related Commands

None

Related Menu Item

None

SHOW FILE_SERVER CONNECTIONS

Purpose

This command displays a list of active connections to the file server. You can display the list of connections for:

- All connections

- A particular client

- A particular service

Command Support

This command runs under the supported transport.

Guidelines

The PCSA Manager displays the following information for each connection:

- The connection ID, which is the unique identifier the file server assigns to each connection

- The workstation's DECnet node name

- The user name specified to make the connection

- The alias name for the service

- The service name

- The access allowed to the service

- The service's root directory specification, if you specify the /FULL qualifier

Privileges

You do not need privileges to use this command.

Format

SHOW FILE_SERVER CONNECTIONS $\left[\begin{array}{l}\text{/CLIENT=name}\\ \text{/[NO]FULL}\\ \text{/SERVICE=name}\end{array}\right]$

Parameters

None

Qualifiers

/CLIENT=name   Restricts the display to the specified client.

/[NO]FULL   Includes the service's root directory in the information
                displayed. /NOFULL is the default.

/SERVICE=name   Restricts the display to the specified service.

Example 1

You want to display all connections to the file server. Enter the following
command:

```
PCSA_MANAGER>  SHOW FILE_SERVER CONNECTIONS

File Server connections:

Connect ID  Client  User name     Alias name     Service name   Acc
----------  ------  ------------  ------------   ------------   ------------
         0  ERICA   SMITH         SMITH          SMITH          RWC
         2  ERICA   PCFS$ACCOUNT  LN03_DPORT     LN03_DPORT     RWC
         3  ERICA   PCFS$ACCOUNT  LN03_DLAND     LN03_DLAND     RWC
     65536  GREEN   PCFS$ACCOUNT  LN03_DPORT     LN03_DPORT     RWC
    131072  YELLOW  PCFS$ACCOUNT  LN03_DPORT     LN03_DPORT     RWC
    262144  MITCH   JONES         JONES          JONES          RWC
    262145  MITCH   PCFS$ACCOUNT  PCCOMMON       PCCOMMON       RWC
    262146  MITCH   PCFS$ACCOUNT  LN03_DPORT     LN03_DPORT     RWC
    262147  MITCH   PCFS$ACCOUNT  LN03_DLAND     LN03_DLAND     RWC
```

Example 2

You want to display the connections to the service LN03_DPORT. Enter the following command:

```
PCSA_MANAGER>  SHOW FILE_SERVER CONNECTIONS /SERVICE=LN03_DPORT

File Server connections:

Connect ID  Client  User name     Alias name    Service name  Acc
----------  ------  ------------  ------------  ------------  ---
         2  ERICA   PCFS$ACCOUNT  LN03_DPORT    LN03_DPORT    RWC
     65536  GREEN   PCFS$ACCOUNT  LN03_DPORT    LN03_DPORT    RWC
    131072  YELLOW  PCFS$ACCOUNT  LN03_DPORT    LN03_DPORT    RWC
    262146  MITCH   PCFS$ACCOUNT  LN03_DPORT    LN03_DPORT    RWC
```

Related Commands

None

Related Menu Item

None

SHOW FILE_SERVER COUNTERS

Purpose

This command monitors performance on the file server and displays statistics for:

- Open file caching
- Network efficiency
- Data caching

Command Support

This command runs under the supported transport.

Guidelines

If you specify the SHOW FILE_SERVER COUNTERS with no qualifiers, all the counters are displayed.

Privileges

You do not need privileges to use this command.

Format

SHOW FILE_SERVER COUNTERS $\begin{bmatrix} \text{/BUFFER\_CACHE} \\ \text{/FILE=[name]} \\ \text{/GLOBAL} \\ \text{/NETWORK} \\ \text{/OPEN\_FILE\_CACHE} \end{bmatrix}$

Parameters

None

Qualifiers

/BUFFER_CACHE	Displays information about data caching, including:
	Disk reads, the number of times the disk is read
	Disk writes, the number of times the disk is written to
	Buffer waits, the number of times the buffers are busy
	Serial waits, the number of times a read or write request cannot complete because the operation is waiting for another event to complete
	Not-in-cache, the number of times a buffer is not in cache when requested
	Read waits, the number of times a read is requested, but the data is not completely transferred from disk to cache
	Read tries, the total number of times the server tried to read data in cache
	File extended, the number of times the file to be written from the cache onto disk is larger than the file written from disk into cache
/FILE[=name]	Displays statistics for individual files that are currently open. Use a filename that conforms to the VMS file specification.
/GLOBAL	Displays information for the file server.
/NETWORK	Displays the number of:
	Requests to read
	Requests to write
	Bytes read from disk or cache
	Bytes written to disk or cache
/OPEN_FILE_ CACHE	Displays statistics of open file caching, such as:
	Cache hit, the number of times a user requests a file to be opened and that file is already in the open file cache
	Cache miss, the number of times a user requests a file to be opened and that file is not in the open file cache
	Hit rate, the number of cache hits divided by the total of cache hits plus cache misses

Example 1

You want to display the read and write requests and bytes read and written. Enter the following command:

```
PCSA_MANAGER>  SHOW FILE_SERVER COUNTERS /NETWORK /GLOBAL

File server global statistic :

SMB Read Requests SMB Write Requests  Bytes Read  Byte Written
----------------- ------------------  ----------  ------------
            183                  6      15764           88
```

Example 2

You want to display statistics for data caching. Enter the following command:

```
PCSA_MANAGER>  SHOW FILE_SERVER COUNTERS /BUFFER_CACHE /GLOBAL

File server Global buffer cache counters :

Disk Reads    Disk Writes  Buffer Waits  Serial Waits
------------  -----------  ------------  ------------
         12            0             1             0

Not-in-Cache  Read Waits  Reads Tries  File Extended
------------  ----------  -----------  -------------
          1            2           10             0
```

Related Commands

None

Related Menu Item

None

SHOW FILE_SERVER OPEN_FILES

Purpose

This command displays a list of files currently opened by the file server. You can display a list of open files for all clients or for a particular client. The list of open files includes:

- File ID

- The workstation connected to the file

- The file specification

- The file size

- The number of locks currently on the file

Command Support

This command runs under the supported transport.

Privileges

You do not need privileges to use this command.

Format

SHOW FILE_SERVER OPEN_FILES [/CLIENT=name]

Parameters

None

Qualifiers

/CLIENT=name Is the client for whom a list of open files is displayed.

Example

You want to display all files opened by client YELLOW. Enter the following command:

```
PCSA_MANAGER> SHOW FILE_SERVER OPEN_FILES/CLIENT=YELLOW

File Server Open Files:

     File ID    Client    File name                  File size   Locks
    ----------  ------    ----------------------     ---------   -----
           0    YELLOW    DUA0:[BIGMAX]TEST1.DAT           200       0
           1    YELLOW    DUA0:[BIGMAX]TEST2.DAT          1543       1
```

Related Commands

None

Related Menu Item

None

SHOW FILE_SERVER SERVICES/ACTIVE

Purpose

This command displays information about active file or print services. Active file or print services are services to which clients are connected.

Command Support

This command runs under the supported transport.

Guidelines

The information displayed about active services includes:

- The service name

- The service type (USER, SYSTEM, APPLICATION, COMMON, or PRINTER)

- The file attribute (STR for stream and SEQ for sequential fixed) and the file length (EST for estimated and ACT for actual)

- The connections limit for the service

- The number of users connected to the service

This command also displays a service with no users if the service was modified with the SET FILE_SERVER SERVICES/ACTIVE command.

The /ACTIVE qualifier is the default for the SHOW FILE_SERVER SERVICES command.

Privileges

You do not need privileges to use this command.

Format

SHOW FILE_SERVER SERVICES /ACTIVE $\left[\begin{array}{l} \text{/SERVICE=name} \\ \text{/TYPE=class} \end{array}\right]$

Parameters

None

Qualifiers

/SERVICE=name   Is the service for which you want information. If you omit this qualifier, the PCSA Manager displays information for all active services.

/TYPE=(class[,..])   Specifies whether to display information for the specified service class. If you omit this qualifier, the PCSA Manager displays information for all service types. The classes are:

[NO]ALL

[NO]APPLICATION

[NO]SYSTEM

[NO]COMMON

[NO]USER

[NO]PRINTER

Example 1

You want to display all services that workstations are currently using. Enter the following command:

```
PCSA_MANAGER>  SHOW FILE_SERVER SERVICES

File Server active services:

Service name  Service type  Att/Len  Limit  Users
------------  ------------  -------  -----  -----
SMITH         USER          STR/EST  NONE       1
LN03_DLAND    PRINTER       STR/EST  NONE       2
LN03_DPORT    PRINTER       STR/EST  NONE       4
PCCOMMON      APPLICATION   STR/EST  NONE       1
VXSYS         SYSTEM        STR/EST  NONE       5
ZACHARY       USER          STR/EST  NONE       1
JONES         USER          STR/EST  NONE       1
```

Example 2

You want to display information about the active print service LN03_
DPORT. Enter the following command:

```
PCSA_MANAGER> SHOW FILE_SERVER SERVICES/SERVICE=LN03 DPORT

File Server active services:

Service name  Service type  Att/Len  Limit  Users
------------  ------------  -------  -----  -----
LN03_DPORT    PRINTER       STR/EST  NONE       4
```

Related Commands

None

Related Menu Item

None

SHOW FILE_SERVER SERVICES/AUTHORIZED

Purpose

This command displays information about granted file or print services.

Command Support

This command runs under the supported transport.

Guidelines

The information is displayed from the entries in the service database. You can display information by alias, user name, service, or group. The information displayed includes:

- The user name or group name (enclosed in angle brackets)

- The alias for the service

- The service name

- The access that the user or group has to the service (R for read access, W for write access, and C for create access)

- The RMS protection for the files that the specified user creates in the service

Privileges

You do not need privileges to use this command.

Format

SHOW FILE_SERVER SERVICES /AUTHORIZED
[/ALIAS=name   ]
[/GROUP=PUBLIC]
[/SERVICE=name]
[/USERNAME=name]

Parameters

None

Qualifiers

/ALIAS=name	Is an alias for which you want to display services.
/GROUP=PUBLIC	Is the group name for which you want to display services. PUBLIC is the only currently supported group name. Do not use this qualifier with the /USERNAME qualifier.
/SERVICE=name	Is the service about which you want to display information.
/USERNAME=name	Is the user name for which you want to display services. Do not use this qualifier with the /GROUP qualifier.

Example 1

You want to know what users and groups have access to file and printer services. Enter the following command:

```
PCSA_MANAGER>  SHOW FILE_SERVER SERVICES/AUTHORIZED

File Server Authorized Services:

User name  Alias name    Service name  Access  RMS protection
---------  -----------   ------------  ------  --------------
<PUBLIC>   ISSYS         ISSYS         R       S:RWED,O:RWED,G:,W:
<PUBLIC>   LA75_D132     LA75_D132     RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LA75_D80      LA75_D80      RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LA75_S132     LA75_S132     RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LA75_S80      LA75_S80      RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LN03_DLAND    LN03_DLAND    RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LN03_DPORT    LN03_DPORT    RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LN03_JASON    LN03_JASON    RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LN03_SLAND    LN03_SLAND    RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LN03_SPORT    LN03_SPORT    RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   PCCOMMON      PCCOMMON      RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   SYS$PRINT     SYS$PRINT     RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   VXSYS         VXSYS         R       S:RWED,O:RWED,G:,W:
SMITH      MULTIPLAN     MULTIPLAN     RWC     S:RWED,O:RWED,G:,W:
ZACHARY    MULTIPLAN     MULTIPLAN     R       S:RWED,O:RWED,G:,W:
```

Example 2

You want to know the services authorized for alias PCCOMMON. Enter
the following command:

```
PCSA_MANAGER>  SHOW FILE_SERVER SERVICES/AUTHORIZED/ALIAS=PCCOMMON

File Server Authorized Services:

User name  Alias name    Service name  Access  RMS Protection
---------  ------------  ------------  ------  --------------
<PUBLIC>   PCCOMMON      PCCOMMON      RWC     S:RWED,O:RWED,G:,W:
```

Example 3

You want to display all file and print services authorized for user RIES.
Enter the following command:

```
PCSA_MANAGER>  SHOW FILE_SERVER SERVICES/AUTHORIZED/USERNAME=RIES

File Server Authorized Services:

User name  Alias name    Service name  Access  RMS Protection
---------  ------------  ------------  ------  --------------
RIES       VXSYS         VXSYS         RWC     S:RWED,O:RWED,G:,W:
```

Example 4

You want to know all the authorized users of file service WPS. Enter the
following command:

```
PCSA_MANAGER>  SHOW FILE_SERVER SERVICES/AUTHORIZED/SERVICE=WPS

File Server Authorized Services:

User name  Alias name    Service name  Access  RMS Protection
---------  ------------  ------------  ------  --------------
<PUBLIC>   WPS           WPS           RWC     S:RWED,O:RWED,G:,W:
```

Example 5

You want to display all file and print services that have public access.
Enter the following command:

```
PCSA_MANAGER>  SHOW FILE_SERVER SERVICES/AUTHORIZED/GROUP=PUBLIC

File Server Authorized Services:

User name  Alias name     Service name  Access  RMS Protection
---------  ------------   ------------  ------  --------------
<PUBLIC>   ISSYS          ISSYS         R       S:RWED,O:RWED,G:,W:
<PUBLIC>   LA75_D132      LA75_D132     RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LA75_D80       LA75_D80      RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LA75_S132      LA75_S132     RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LA75_S80       LA75_S80      RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LN03_DLAND     LN03_DLAND    RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LN03_DPORT     LN03_DPORT    RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LN03_JASON     LN03_JASON    RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LN03_SLAND     LN03_SLAND    RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   LN03_SPORT     LN03_SPORT    RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   PCAPP          PCAPP         R       S:RWED,O:RWED,G:,W:
<PUBLIC>   PCCOMMON       PCCOMMON      RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   SYS$PRINT      SYS$PRINT     RWC     S:RWED,O:RWED,G:,W:
<PUBLIC>   VXSYS          VXSYS         R       S:RWED,O:RWED,G:,W:
<PUBLIC>   WPS            WPS           RWC     S:RWED,O:RWED,G:,W:
```

Related Commands

None

Related Menu Item

None

SHOW FILE_SERVER SERVICES/REGISTERED

Purpose

This command displays information about registered file and print services.

Command Support

This command runs under the supported transport.

Guidelines

A registered file or print service is one defined with the ADD SERVICE/DIRECTORY or ADD SERVICE/PRINTER command. The information is displayed from the entries in the service database. For file services, the display includes:

*   The service name

*   The service's root directory

*   The service type (SYSTEM, APPLICATION, COMMON, or USER)

*   The file attribute (STR for stream and SEQ for sequential fixed) and the file length (EST for estimated and ACT for actual)

*   The connections limit for the service

*   The RMS protection used for the service, if you specify the /FULL qualifier

For print service, the display includes:

*   The service name

*   The service's spool directory

*   The service's queue name

*   The service's form name

*   The connections limit for the service

*   The RMS protection used for the service, if you specify the /FULL qualifier

Privileges

You do not need privileges to use this command.

Format

SHOW FILE_SERVER SERVICES /REGISTERED
[/DIRECTORY | /PRINTER]
[/[NO]FULL   ]
[/SERVICE=name   ]

Parameters

None

Qualifiers

/DIRECTORY	/PRINTER	Displays either file services or print services.
	If you omit both qualifiers, the PCSA Manager displays both file and print services.
/[NO]FULL	Includes the default protection mask in the information displayed. /NOFULL is the default.
/SERVICE=name	Is the service for which information is displayed. If you omit this parameter, the PCSA Manager displays information for all registered services.

Example

You want to display all services currently registered with the file server.
Enter the following command:

```
PCSA_MANAGER>  SHOW FILE_SERVER SERVICES/REGISTERED

File Server Registered Directory Services:

Service name Root directory          Service type Att/Len Limit
------------ ------------------------ ------------ ------- -----
ISSYS        DUB1:[ISSYS]             SYSTEM       STR/EST NONE
PCCOMMON     DUB0:[PCCOMMON.PCCOMMON] COMMON       STR/EST NONE
VXSYS        DUB1:[VXSYS]             SYSTEM       STR/EST NONE


File Server Registered Printer Services:

Service name Spool directory          Queue Name    Form Name    Limit
------------ -----------------         ---------     ---------    -----
LN03_DLAND   SYS$SYSDEVICE:[PCFS_SPOOL.LN03_DLAND]
                                       PCFS$LN03     LN03_DLAND   NONE
LN03_DPORT   SYS$SYSDEVICE:[PCFS_SPOOL.LN03_DPORT]
                                                     LN03_DPORT   NONE
```

Related Commands

None

Related Menu Item

None

SHOW FILE_SERVER SESSIONS

Purpose

This command displays a list of DECnet sessions currently active with
the file server. You can display a list of sessions for all clients or one
particular client. The display includes:

- The session ID, which is a unique identifier the file server assigns for
  each connected workstation

- The name of the workstation that has an active session

- The number of connections the workstation has for the session

- The number of open files the workstation has for the session

Command Support

This command runs under the supported transport.

Privileges

You do not need privileges to use this command.

Format

SHOW FILE_SERVER SESSIONS [/CLIENT=name]

Parameters

None

Qualifiers

/CLIENT=name Is the client for which you want to display information.

Example

You want to display all clients that are connected to the file server. Enter the following command:

```
PCSA_MANAGER>  SHOW FILE_SERVER SESSIONS

File Server sessions:

Session ID  Client  Connections  Open files
----------  ------  -----------  ----------
         0  FRED              2           3
         1  BARNEY            5          10

Total of 2 sessions, 7 connections and 13 open files
```

Related Commands

None

Related Menu Item

None

SHOW FILE_SERVER STATUS

Purpose

This command displays status information about the file server. The information this command displays includes:

- Whether the server is accepting or rejecting connection requests
- Whether the server is accepting or rejecting connection requests from nodes that are not registered
- The name of the current server log file
- Events currently being logged

Command Support

This command runs under the supported transport.

Privileges

You do not need privileges to use this command.

Format

SHOW FILE_SERVER STATUS

Parameters

None

Qualifiers

None

Example

You want to display the current file server status. Enter the following command:

```
PCSA_MANAGER> SHOW FILE_SERVER STATUS

File Server status:

Server is accepting connection requests.
Server will refuse users that are not registered.

File Server logging status:

Logfile : PCFS_SERVER.LOG
Logging events : CONNECTIONS, ERRORS, FATAL, PROTOCOL, SECURITY
```

Related Commands

None

Related Menu Item

None

SHOW GROUP

Purpose

This command displays information about a user, group, or all groups.

Command Support

This command runs under the supported transport.

Guidelines

You cannot displays information about the group PUBLIC.

Privileges

You do not need privileges to use this command.

Format

SHOW GROUP $\left[\begin{array}{l} \text{/GROUP=groupname} \\ \text{/MEMBERS} \\ \text{/USERNAME=username} \end{array}\right]$

Parameters

None

Qualifiers

/GROUP=	Is the name of the group about which you want to display information.
	If you specify /GROUP, you cannot specify /USERNAME.
/MEMBER	Displays the members of the specified group.
	If you specify /MEMBERS, you cannot specify /USERNAME.

/USERNAME=   Is the user name of the member about whom you want to display information.

If you specify /USERNAME, you cannot specify /GROUP or /MEMBERS.

Example 1

You want to displays the names of all the groups. Enter the following command:

```
PCSA_MANAGER>  SHOW GROUP

Registered groups:

Group name
----------
GROUP1
GROUP2
GROUP3
GROUP4
GROUP5

Total of 5 registered groups
```

Example 2

You want to display the names of all the members in GROUP1. Enter the following command:

```
PCSA_MANAGER>  SHOW GROUP /GROUP=GROUP1 /MEMBERS

Registered groups

Group name   User name
----------   -----------
GROUP1       USER1

Total of 1 registered group
```

Example 3

You want to display all group information about the user USER1. Enter the following command:

```
PCSA_MANAGER> SHOW GROUP /USERNAME=USER1

Registered groups

Group name   User name
----------   -----------
GROUP1       USER1
GROUP3       USER1
GROUP5       USER1

Total of 3 registered group
```

Related Commands

None

Related Menu Item

```
User Options
  Group Options
    List Registered Groups
```

SHOW TEMPLATES

Purpose

This command displays the templates defined for remote boot workstations.

Command Support

This command runs under the supported transport.

Privileges

You do not need privileges to use this command.

Format

SHOW TEMPLATES

Parameters

None

Qualifiers

None

Example

You want to display the template for remote boot workstations. Enter the following command:

```
PCSA_MANAGER>  SHOW TEMPLATES

Workstation Templates:

Template Name                 Comment
-------------                 ------------------------
TESTLAB                       Standard test environment
PROTO                         Prototype
```

Related Commands

None

Related Menu Item

None

SHOW USERS

Purpose

This command displays a list of currently registered PCSA users.

Command Support

This command runs under the supported transport.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

SHOW USERS [/USERNAME=name]

Parameters

None

Qualifiers

/USERNAME=name   Restricts the display of information to that of the specified
                   user. Enter a user name of 1 to 12 characters.

Example

You want to display a list of currently-registered PCSA users. Enter the
following command:

```
PCSA_MANAGER>  SHOW USERS
```

Related Commands

None

Related Menu Item

```
User Options
  List Registered Users
```

SHOW VERSION

Purpose

This command displays the current version numbers for the VMS server
software.

Command Support

This command runs under the supported transport.

Privileges

You do not need privileges to use this command.

Format

SHOW VERSION

Parameters

None

Qualifiers

None

Example

You want to display the version numbers for the VMS server software.
Enter the following command:

```
PCSA_MANAGER>  SHOW VERSION

LAD$KERNEL version   :  LAD$KERNEL V1.2
LADDRIVER version    :  LADDRIVER V1.2
PCFS_SERVER version  :  DEC LanWORKS for VMS V4.0
PCSA_MANAGER version :  PCSA_MANAGER V4.0
```

Related Commands

None

Related Menu Item

None

SHOW WORKSTATIONS

Purpose

This command displays a list of workstations configured for remote boot.

Command Support

This command runs under the supported transport.

Privileges

You do not need privileges to use this command.

Format

SHOW WORKSTATIONS

Parameters

None

Qualifiers

None

Example

You want to see which workstations are configured for remote boot. Enter the following command:

```
PCSA_MANAGER> SHOW WORKSTATIONS

Registered Remote Boot Workstations:

Name   Hardware Address  Address  Load File    Size    Comment
-----  ----------------  -------  ----------   ------  --------------
CHAIS  08-00-3B-04-91-C6 3.854    DEPCA.TSK    1.2MB   NETSETUP_V3.0
WENDY  08-00-2B-07-21-46 3.021    DEPCA.TSK    1.2MB   NETSETUP_V3.0

Total of 2 registered remote boot workstations
```

Related Commands

None

Related Menu Item

None

START DISK_SERVER CONNECTIONS

Purpose

This command starts the disk server after the driver is loaded.

Command Support

This command runs under the supported transport.

Guidelines

The disk server startup file, LAD_STARTUP.COM contains the command to load the driver and the command to start the disk server automatically.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

START DISK_SERVER CONNECTIONS [/CACHE=size]

Parameters

None

Qualifiers

/CACHE=size   Defines the size of the disk server cache. The cache size is the amount of non-paged dynamic memory in pages used for disk caching. The cache size is limited by the amount of non-paged dynamic memory, which is determined by the NPAGEDYN and NPAGEVIR SYSGEN parameters.

The START DISK_SERVER CONNECTIONS command in the LAD_STARTUP.COM file sets the cache to 512 pages by default. To change the cache size, dismount all disks and restart the disk server specifying the new cache size.

The /CACHE qualifier can affect disk server performance depending on the amount of access to disk server services. To determine if the cache size is adequate, use the SHOW DISK_ SERVER COUNTERS /CACHE command and check the cache hit rate. If it is low (less than 50%), increase the cache size until you see an increase in the cache hit rate.

Example

You want to start the disk server and set the cache to 768. Enter the following command:

```
PCSA_MANAGER> START DISK SERVER CONNECTIONS /CACHE=768
%PCSA-I-CACHESET, server cache size set to 768
```

Related Commands

None

Related Menu Item

None

START FILE_SERVER CONNECTIONS

Purpose

This command allows the file server to accept service connections.

Command Support

This command runs under the supported transport.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

START FILE_SERVER CONNECTIONS [/[UN]REGISTERED]

Parameters

None

Qualifiers

/[UN]REGISTERED   /UNREGISTERED allows workstations that are not
registered in the DECnet node database to connect to the
file server. This is the default.

/REGISTERED allows only registered workstations to
connect to the file server.

Example 1

You want to enable the file server to accept connections from unregistered
DECnet nodes. Enter the following command:

```
PCSA_MANAGER>  START FILE_SERVER CONNECTIONS /UNREGISTERED
%PCSA-I-UNREGCON, File Server will accept unregistered connections
```

Example 2

You want to enable the file server to accept connections from registered
DECnet nodes only. Enter the following command:

```
PCSA_MANAGER>  START FILE SERVER CONNECTIONS
%PCSA-I-NOUNREGCON, File Server will refuse unregistered connections
```

Related Commands

None

Related Menu Item

None

START FILE_SERVER LOGGING

Purpose

This command turns on logging of file server events. You can also open a new log file with this command.

Command Support

This command runs under the supported transport.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

START FILE_SERVER LOGGING $\left[\begin{array}{l} \text{/EVENTS=option[,...]} \\ \text{/LOG\_FILE=name} \end{array} \right]$

Parameters

None

Qualifiers

/EVENTS=(option[,...]) Starts logging one or more of the events in the following list:

Event type	Function
ALL	All event types
CONNECTIONS	Connections to services
DEFAULT	Default events
ERRORS	Nonfatal errors
FATAL	Fatal errors
LOCKS	MS-DOS file lock and unlock requests
OPENS	File open and close requests
OPERATOR	Operator actions
PROTOCOL	Protocol errors
READS	File read and write requests
SECURITY	Security violations
SESSIONS	DECnet connections

By default, the server logs ERRORS, FATAL, OPERATOR, PROTOCOL, and SECURITY. If you omit this qualifier, the current log file is closed and a new log file is created. The new log file name is the default log file name unless overridden with the /LOG_FILE qualifier.

/LOG_FILE=name Is a log file name. If logging is currently started, the old log file is closed and a new log file is opened.

Example 1

You want to log the file server events CONNECTIONS and LOCKS. Enter the following command:

```
PCSA_MANAGER>  START FILE_SERVER LOGGING/EVENTS=(CONNECTIONS,LOCKS)
%PCSA-I-LOGCHARSET, server logging characteristics set
```

Example 2

You want to log the file server event SESSIONS and open a new log file. Enter the following command:

```
PCSA_MANAGER>  START FILE_SERVER LOGGING/EVENTS=(SESSIONS) -
_PCSA_MANAGER>  /LOG_FILE=NEWLOG.LIS
%PCSA-I-LOGCHARSET, server logging characteristics set
```

Related Commands

None

Related Menu Item

None

STOP DISK_SERVER CONNECTIONS

Purpose

This command:

- Stops the disk server
- Breaks all connections to the disk server
- Dismounts all mounted virtual disks
- Stops the LAD$KERNEL process

NOTE
Depending on the number of virtual disks mounted and the current load on the system, this could take a minute or so before the LAD$KERNEL process actually stops.

To restart the disk server, use the disk server startup file, SYS$STARTUP:LAD_STARTUP.COM.

Command Support

This command runs under the supported transport.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

STOP DISK_SERVER CONNECTIONS

Parameters

None

Qualifiers

None

Example

You want to stop the disk server. Enter the following command:

```
PCSA_MANAGER> STOP DISK SERVER CONNECTIONS
%PCSA-I-DSVRSSTOPPED, all connections stopped, LAD$KERNEL process terminated
```

Related Commands

None

Related Menu Item

None

STOP FILE_SERVER CONNECTIONS

Purpose

This command stops file server connections, and can:

- Stop the file server process. To restart the file server process, use the PCFS_STARTUP.COM file.

- Disconnect a specific connection.

- Disconnect all connections to a specified service.

- Stop the file server from accepting connections to unregistered nodes.

Command Support

This command runs under the supported transport.

Guidelines

You must specify at least one qualifier with the STOP FILE_SERVER CONNECTIONS command.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

STOP FILE_SERVER CONNECTIONS $\begin{bmatrix} \text{/ALL\_SERVICES} \\ \text{/ID=connection-id} \\ \text{/SERVICE=name} \\ \text{/UNREGISTERED} \end{bmatrix}$

Parameters

None

Qualifiers

/ALL_SERVICES	Disconnects all connections, discontinues sessions for all currently active services, and stops the file server process PCFS_SERVER.
/ID=connection-id	Disconnects a specific connection. You can obtain the connection-id from the SHOW FILE_SERVER CONNECTIONS command.
/SERVICE=name	Disconnects all currently active connections for the specified service.
/UNREGISTERED	Stops the file server from accepting connections for unregistered nodes.

Example 1

You want to disconnect all current file server connections. Enter the following command:

```
PCSA_MANAGER>  STOP FILE_SERVER CONNECTIONS/ALL SERVICES
%PCSA-I-FSVRSTOPPED, all connections stopped, file server process terminated
```

Example 2

You want to disconnect all connections to the service PCSAV40. Enter the following command:

```
PCSA_MANAGER>  STOP FILE_SERVER CONNECTIONS/SERVICE=PCSAV40
%PCSA-I-CONSTOPPED, the specified connections have been stopped
```

Related Commands

None

Related Menu Item

None

STOP FILE_SERVER LOGGING

Purpose

This command stops the logging of events to the file server log file.

Command Support

This command runs under the supported transport.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

STOP FILE_SERVER LOGGING /EVENTS=(option,[,...])]

Parameters

None

Qualifiers

/EVENTS=(option[,...]) Stops logging one or more of the events in the following list:

Event type	Function
ALL	All event types
CONNECTIONS	Connections to services
DEFAULT	Default events
ERRORS	Nonfatal errors
FATAL	Fatal errors
LOCKS	MS-DOS file lock and unlock requests
OPENS	File open and close requests
OPERATOR	Operator actions
PROTOCOL	Protocol errors
READS	File read and write requests
SECURITY	Security violations
SESSIONS	DECnet connections

Example

You want to stop logging SESSIONS. Enter the following command:

```
PCSA_MANAGER>  STOP FILE_SERVER LOGGING/EVENTS=(SESSIONS)
%PCSA-I-LOGCHARSET, server logging characteristics set
```

Related Commands

None

Related Menu Item

None

STOP FILE_SERVER SESSION

Purpose

This command stops a workstation's session with the file server.

Command Support

This command runs under the supported transport.

Guidelines

This command breaks the DECnet session between the file server and the workstation and disconnects the workstation from all services that it is currently using.

The workstation may reconnect to the file server if the user at the workstation attempts to use that drive.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

STOP FILE_SERVER SESSION nodename

Parameters

nodename   Is the DECnet node name of the workstation being disconnected. The node name consists of one to six alphanumeric characters. At least one character must be alphabetic.

Qualifiers

None

Example

You want to stop the session between the file server and workstation
BIGMAX. Enter the following command:

```
PCSA_MANAGER>  STOP FILE_SERVER SESSION BIGMAX
%PCSA-I-SESSSTOPPED, the specified session has been stopped
```

Related Commands

None

Related Menu Item

None

ZERO DISK_SERVER COUNTERS

Purpose

This command clears counters maintained by the disk server.

Command Support

This command runs under the supported transport.

Privileges

You need OPER and SYSPRV privileges to use this command.

Format

ZERO DISK_SERVER COUNTERS $\begin{bmatrix} \text{/CACHE} \\ \text{/CLIENT[=name]} \\ \text{/SERVICE[=name]} \end{bmatrix}$

Parameters

None

Qualifiers

/CACHE

Resets the current cache counters, which include:

The number of write requests

The number of blocks written

The number of read requests

The number of blocks read

The number of cache hits

The number of blocks not read due to the cache

/CLIENT[=name]	Resets the client counters for all clients or the specified client. The counters include the number of:

Blocks read

Blocks written

Read requests

Write requests

/SERVICE[=name]	Resets the service counters for all services or the specified service. If you use this qualifier with the /CLIENT qualifier, the PCSA Manager restricts the client counters zeroed to those of the specified service. The counters include the number of:

Blocks read

Blocks written

Read requests

Write requests

Example 1

You want to reset the cache counters. Enter the following command:

```
PCSA_MANAGER>  ZERO DISK_SERVER COUNTERS/CACHE
%PCSA-I-CACHEZEROED, server cache counters zeroed
```

Example 2

You want to clear all disk server client counters for client YELLOW and service PCSA$DOS_SYSTEM_V30. Enter the following command:

```
PCSA_MANAGER>  ZERO DISK_SERVER COUNTERS -
_PCSA_MANAGER>  /CLIENT=YELLOW /SERVICE=PCSA$DOS_SYSTEM_V30
%PCSA-I-CLIENTZEROED, counters for client YELLOW service PCSA$DOS_SYSTEM_V30 zeroed
```

Related Commands

None

Related Menu Item

None

2
PCDISK Utility

This chapter describes the *PCDISK utility*, which is a file management
utility that runs on VMS. This file management utility is a program that
provides a set of related general purpose functions, such as file copy, file
transfer, and directory listing. With PCDISK, you can access or maintain
the contents of a DOS device on the VMS operating system. Throughout
this chapter, the term *DOS device* refers to any of the following:

- Virtual disk files that emulate a DOS diskette

- Virtual disk files that emulate a DOS partitioned hard disk

- PCSA supported disk services

- VMS accessible DOS-formatted devices, for example, an RX33 diskette

This chapter discusses:

- Supported media

- How to run PCDISK

- Wildcards

- VMS command line editing

- Backup capability

- Command procedures

- PCDISK utility commands

Supported Media

PCDISK supports the following DOS devices:

- DOS virtual disks

  VMS sequential files that PCSA supported workstations can access.
  The full specification for a virtual disk is:

  ```
  node"username password"::device:[directory]filename.ext
  ```

You must specify the file name portion of the DOS device specification. It is not necessary to specify the file extension. The default file extension for virtual disk files is .DSK.

- PCSA disk services

  Disk services offered by a PCSA server. The full specification for a PCSA disk service is:

  ```
  node"password"::service_name
  ```

- DOS-formatted devices

  VMS accessible device in DOS format. The device name specification must **not** have a node, directory, or file specification, and must be followed by a colon (for example, DUA2:). Supported DOS-formatted devices include:

  — RX23 diskettes (1.4 Mbyte only)

  — RX33 diskettes (1.2 Mbyte only)

How to Run PCDISK

To run the PCDISK utility, at the $ prompt, enter:

```
$ RUN SYS$SYSTEM:PCDISK
```

The following prompt is displayed:

```
PCDISK>
```

After the PCDISK prompt is displayed, you need to connect the DOS devices that contain the files you want to reference. You connect a DOS device with the USE command. For example, to connect a virtual disk file, physical diskette, and a PCSA disk service, enter the following:

```
PCDISK> USE A: MY_FILES.DSK
A:\> USE B: DUA1:
A:\> USE C: BRONTE::MY_SERVICE /LAD_SERVICE
A:\>
A:\> SHOW CONNECTIONS

Drive     Type      Access    Sectors    Name
 A:      Floppy      R/W        2400     DUA0:[USER]MY_FILES.DSK;
 B:      Device      R/W        2400     DUA1:
 C:  LAD Floppy      R/W       65528     BRONTE::MY_SERVICE
```

Once you make your connections, you can manage your files within the DOS devices or you can copy files between VMS and the DOS devices using the PCDISK commands. For information on the PCDISK commands, see PCDISK Utility Commands in this chapter.

The following sections describe:

- Information common to all commands

- The PCDISK commands

Information Common to All PCDISK Commands

The following information applies to all PCDISK commands:

- Many commands are followed by qualifiers. These qualifiers supply additional information for specific command execution. Qualifiers are preceded by a forward slash (/). For example:

  ```
  A:\> DEL E:DATA.TXT/LOG
  ```

  The /LOG qualifier indicates that you want a printed message on the screen stating which file you deleted.

- Separate commands and parameters with delimiters. Valid delimiters are:

  — Space

  — Tab

- Commands execute when you press the Return key.

- The prompt is the default drive/directory designation followed by a right angle bracket (>). For example, in the following, the prompt for drive A selected to the root directory, is:

  ```
  A:\>
  ```

  Some command explanations refer to disk drives or files as the source and destination.

  — The *source* is the drive or file from which you transfer information.

  — The *destination* is the drive or file to which you transfer information.

  In all cases, enter the source before the destination. In the following example, SOURCE.TXT is the source (the file from which the COPY command transfers information) and DESTINAT.TXT is the destination (the file where the COPY command transfers information):

  ```
  A:\> COPY A:SOURCE.TXT C:DESTINAT.TXT
  A:\>
  ```

Naming DOS Files

The following rules apply to naming files:

* A file name has two parts:

    – The one- to eight-character file name.

    – The one- to three-character file extension.

    NOTE
    PCDISK produces an error for any file names that are greater
    than eight characters and any file extensions that are greater
    than three characters.

* You cannot use the following characters in a file name or fileextension:

    , " / \ [ ] : | < > + = ; period (.)

* Use a period (.) to separate a file name and a file extension.

* You can enter file names and file extensions that use the following
  characters:

A-Z	a-z	0-9
$	&	#
%	'	-
@	{	}
~	'	_

* PCDISK returns an error when the following special characters are
  used without quotation marks within a DOS file specification.

Character	Situation
?	Is the first character.
^	Is the first character.
( )	Are anywhere in the file specification.
!	Is anywhere in the file specification. All characters to the right of the exclamation point are ignored.

To avoid this problem, enclose the DOS file specification in quotation marks. For example:

```
A:\>dir "???.bat"
A:\>attrib "^abc.dat" /read-only
A:\>copy hoolay.dat "tim.(m)"
A:\>rename qwan.dat "ab!cd!e.x!y"
```

- Because the DOS operating system reserves certain words for special purposes, you cannot use the following words as file names:

AUX	CON
PRN	NUL
CLOCK$	LPT
LPT1	LPT2
LPT3	LPT4
COM1	COM2
COM3	COM4

In addition to naming files, you must also be familiar with DOS directory structures and path names. For information on directories and paths, see your DOS reference manual.

Wildcards

A *wildcard* is a character that is used alone or replaces characters in a file name or file extension. Wildcards can give many commands greater flexibility. You can use wildcards with the following PCDISK commands:

- ATTRIBUTE
- COPY
- DELETE
- DIRECTORY
- EXPORT
- IMPORT
- RENAME
- SET FILE
- XCOPY

The wildcards, which are discussed in the following sections, are:

*   The asterisk (*)

*   The question mark (?)

*   The percent sign (%)

Asterisk

An asterisk (*) in a file name or file extension indicates that any number of characters (zero or more) can occupy that position. For example, if you type the following command:

```
E:\> DEL M*.TXT/LOG
```

PCDISK displays the following information:

```
%PCDISK-I-DELETED, File E:\MEMO1.TXT deleted
%PCDISK-I-DELETED, File E:\MEMO2.TXT deleted
%PCDISK-I-DELETED, File E:\MEMO.TXT deleted
%PCDISK-I-DELETED, File E:\MILLER.TXT deleted
E:\>
```

Question Mark

A question mark (?) is the single character wildcard for DOS file specifications. A question mark in a file name or file extension indicates that any single character, or no character, can occupy that position. For example if you enter the following command:

```
E:\> DEL MEMO?.TXT/LOG
```

PCDISK displays the following information:

```
%PCDISK-I-DELETED, File E:\MEMO1.TXT deleted
%PCDISK-I-DELETED, File E:\MEMO2.TXT deleted
%PCDISK-I-DELETED, File E:\MEMO.TXT deleted
E:\>
```

Percent Sign

The percent sign (%) is the single character wildcard for VMS file specifications. It is used to allow any single character to occupy its position. Unlike the "?", it requires that a character must exist in its position.

```
E:\> IMPORT MEMO%.TXT/LOG
%PCDISK-I-IPD, WORK:[SARRO]MEMO1.TXT;1 imported to E:\MEMO1.TXT
%PCDISK-I-IPD, WORK:[SARRO]MEMO2.TXT;1 imported to E:\MEMO2.TXT
%PCDISK-I-NIPD, 2 Files imported
E:\>
```

NOTE

The % is a valid character within a DOS file specification.

VMS Command Line Editing

PCDISK supports VMS command line editing using control keys.
Table 2–1 lists some of the most useful control key combinations.

Table 2–1   Control Keys

Key	Function
→⏐	Moves the cursor to the right.
⏐←	Moves the cursor to the left.
Ctrl/A	Toggles between overstrike and insert mode.
Ctrl/C	Cancels command processing and returns you to the VMS prompt. Ctrl/C is displayed as "Cancel."
Ctrl/E	Moves the cursor to the end of the command line.
Ctrl/H	Moves the cursor to the beginning of the command line.
Ctrl/J	Deletes the word to the left of the cursor.
Ctrl/U	Deletes from the cursor to the beginning of the line.
Ctrl/Y	Interrupts command processing and returns you to the VMS prompt. Ctrl/Y is displayed as "Interrupt."
Ctrl/Z	Interrupts command processing and returns you to the VMS prompt. Ctrl/Z is displayed as "Exit."

In addition, PCDISK also supports parameter prompting. If you
omit part of a command, your system prompts you for the missing
information. A line beginning with an underscore (_) means the system
is waiting for your response. For example, if you want to rename the file
STANDARD.EXE on the default drive to SYSTEM.EXE, and you enter
the command RENAME only, PCDISK displays the following:

```
A:\> RENAME
_From:  STANDARD.EXE
_To:  SYSTEM.EXE
A:\>
```

Backup Capability

Using a series of PCDISK commands, you can create a backup virtual
disk for your DOS device without using excess disk space. To do this:

*   Use the CREATE command to create a virtual disk file. Use the
    /ALLOCATION qualifier to minimize disk usage.

*   With the USE command, connect to the DOS device you want to back
    up and the newly created virtual disk file.

*   Use the XCOPY command and specify the /SUBDIRECTORIES and
    the /MODIFIED qualifiers to copy only modified files from the source
    to the destination.

For example,

```
PCDISK> CREATE BACKUP.DSK /SIZE=5MB /ALLOC=100 /VOL=BACKUP
PCDISK> USE A: ACTIVE.DSK
A:\> USE B: BACKUP.DSK
A:\> XCOPY A:\ B:\ /SUBDIRECTORIES /MODIFIED /LOG
...
A:\> EXIT
```

The above commands back up the virtual disk file ACTIVE.DSK to
BACKUP.DSK. They scan the directory tree structure of the source
device, and create an identical tree structure on the destination device.
Only those files that have the "Archive" file attribute are copied. Upon
completion of each copy operation, the source file's "Archive" attribute is
cleared.

Disk space is dynamically allocated as needed during the backup
operation.

The PCDISK Utility Commands section explains the CREATE and
XCOPY commands used in the backup operation.

Command Procedures

PCDISK supports PCDISK and DCL command procedures. A **PCDISK command procedure** is a file that contains PCDISK commands. You can write PCDISK command procedures to execute a few commonly used commands from within PCDISK. You can also invoke command procedures from the DCL level. You can use a DCL command procedure to invoke PCDISK and execute commands to do DOS file management functions.

Use a text editor to create and format a command procedure. When you name the command procedure, use the file type COM. The @ command appends the default file type COM to the file name you specify. If you use another file type you must specify the file type when you execute the command procedure.

When you execute a command procedure, the file is read and the commands it contains are run. For example, suppose you have two files in your directory that you connect every time you run the PCDISK utility. You can use the following PCDISK command procedure, called CONNECT.COM to connect the files and display a completion message.

```
USE A: DOSA.FPY/LOG
USE B: DOSB.FPY/LOG
```

The following example shows how to start the PCDISK utility and run CONNECT.COM from within PCDISK:

```
$ RUN SYS$SYSTEM:PCDISK
PCDISK V1.1 BL3
PCDISK> @CONNECT
%PCDISK-I-VFCON, Diskette DUA0:[MYDIR]DOSA.FPY; connected as drive A:
%PCDISK-I-VFCON, Diskette DUA0:[MYDIR]DOSB.FPY; connected as drive B:
A:\>
```

You can also use a command procedure to start PCDISK from DCL, run commands within the PCDISK utility, and exit. For example, if you have a virtual disk (WORK.DSK) that you want to back up daily, you can use a DCL command procedure to do this. Use the procedure explained in Backup Capability, to create a backup disk (BACKUP.DSK). To back up daily modifications of the virtual disk WORK.DSK, your command procedure might look like the following—BACKUP.COM:

```
$ RUN SYS$SYSTEM:PCDISK
USE A: WORK.DSK
USE B: BACKUP.DSK
XCOPY A:\ B:\ /SUBDIRECTORIES /MODIFIED /LOG
 . . .
EXIT
$ EXIT
```

PCDISK Utility Commands

Table 2–2 lists the PCDISK commands and briefly describes their functions.

Table 2–2   PCDISK Commands

Command	Description	Function
ATTRIBUTE	Attribute	Sets, clears, or displays DOS file attributes.
CHDIR or CD	Change Directory	Displays or sets the default directory.
COPY	Copy	Copies DOS files between and within DOS devices.
CREATE	Create	Creates and formats a DOS virtual disk file.
DELETE	Delete	Removes one or more files from a DOS device.
DIRECTORY	Directory List	Displays information about the file entries contained in a specified directory.
EXIT	Exit	Disconnects any assigned DOS devices, and then exits the PCDISK utility.
EXPORT	Export File	Copies (exports) a DOS file from a DOS device to the VMS file system.
FORMAT	Format	Formats a DOS device.
HELP	Help	Displays help about PCDISK commands.
IMPORT	Import File	Copies (imports) a file from the VMS file system to a DOS device.
LABEL	Label	Creates, changes, or deletes a disk volume label on a specified drive.
MKDIR or MD	Make Directory	Creates a directory on a DOS device.
RENAME	Rename File	Renames a specified file.
RMDIR or RD	Remove Directory	Removes a directory from a DOS device.
SET	Set	Sets disk and file information within a connected DOS device.
SHOW	Show	Displays information about active connections, services on available servers, and the PCDISK software version.

Table 2-2 (Cont.)   PCDISK Commands

Command	Description	Function
SPAWN	Spawn	Creates a subprocess, suspending but not ending, the current PCDISK session.
TYPE	Type	Displays the contents of a file.
USE	Use	Connects and disconnects a DOS device.
VOLUME	Volume	Displays the disk volume of a specified drive.
XCOPY	Xcopy	Copies files from more than one directory

The vocabulary in the following command section consists of commands, parameters, and qualifiers. Items in brackets ([ ]) are optional. If all the parameters are optional, at least one parameter must be used with the command.

When specifying a command or qualifier, use enough letters to uniquely identify the command or qualifier. For example, you can shorten the DIRECTORY command to DIR, and the /LAD_SERVICE qualifier to /LAD. If you do not use enough letters, you will get an error message.

ATTRIBUTE

Purpose

This command sets, clears, or displays DOS file attributes.

Guidelines

DOS file *attributes* are the file's characteristics. The attributes indicate
that the files have special protections. Table 2–3 describes the attributes.

Table 2–3   Directory File Attributes

Attribute	Meaning
ARCHIVE	A file that has not been backed up.
HIDDEN	A file that is not visible during normal operations.
READ_ONLY	A file you cannot change or delete.
SYSTEM	A file used by the operating system; system files are normally hidden.

Privileges

None

Format

ATTRIBUTE
$$\left[\begin{array}{l} \text{/[NO]ARCHIVE} \\ \text{/[NO]HIDDEN} \\ \text{/[NO]LOG} \\ \text{/[NO]READ\_ONLY} \\ \text{/[NO]SYSTEM} \end{array}\right]$$

Parameters

file-spec   Is the DOS file specification.

Qualifiers

/[NO]ARCHIVE	Sets or clears the archive file attribute.
/[NO]HIDDEN	Sets or clears the hidden file attribute.
/[NO]LOG	Controls whether the ATTRIBUTE command displays the file specification and attributes of each file. The default is /NOLOG.
/[NO]READ_ONLY	Sets or clears the read-only file attribute.
/[NO]SYSTEM	Sets or clears the system file attribute.

Example 1

This example shows how to set the file attribute to hidden on file USE.DIA.

```
E:\> ATTRIBUTE USE.DIA/HIDDEN/LOG
%PCDISK-I-ATT, E:\USE.DIA file attributes set to " H "
```

Example 2

This example shows how to clear the hidden file attribute on file USE.DIA.

```
E:\> ATTRIBUTE USE.DIA/NOHIDDEN/LOG
%PCDISK-I-ATT, E:\USE.DIA file attributes set to "    "
```

Example 3

This example shows how to set the file attribute to system on file MEMO.DIA.

```
E:\> ATTRIBUTE MEMO.DIA/SYSTEM/LOG
%PCDISK-I-ATT, E:\MEMO.DIA file attributes set to " S "
```

Related Commands

SET FILE

Related Menu Item

None

CHDIR

Purpose

This command changes or displays the current default directory.

Guidelines

None

Privileges

None

Format

CHDIR | CD [\path\]

Parameters

\path\   Is the path to which you want to change.

You can display the default directory path for the current drive by omitting this parameter or for another drive by specifying the drive letter only.

Qualifiers

None

Example 1

This example changes from the root directory to the subdirectory \PERSONAL.

```
E:\> CHDIR PERSONAL
E:\PERSONAL>
```

Example 2

This example changes \PERSONAL\USER to the subdirectory
\PERSONAL\USER\FILES.

```
E:\>CD \PERSONAL\USER\FILES
E:\PERSONAL\USER\FILES>
```

Example 3

This example changes to the directory above your current directory.

```
E:\PERSONAL\USER\FILES> CHDIR..
E:\PERSONAL\USER>
```

Example 4

This example changes from the subdirectory \PERSONAL\USER to the
root directory.

```
E:\PERSONAL\FILES>CD \
E:\>
```

Related Commands

MKDIR
RMDIR

Related Menu Item

None

COPY

Purpose

This command copies DOS files between and within DOS devices.

Guidelines

None

Privileges

None

Format

COPY [drv1:][\path1\][filename1.ext] - [drv2:][\path2\][filename2.ext] -
$$\left[\begin{array}{l} \text{/FORCE\_WRITE} \\ \text{/LOG} \end{array}\right]$$

Parameters

drv1:	Is the DOS drive containing the file you want to copy. If you omit this drive, the COPY command uses the default drive.
\path1\	Is the DOS path name containing the file you want to copy. If you omit this path, the COPY command uses the default path.
filename1.ext	Is the file name and file extension of the file you want to copy. If you omit this, it implies that you want to copy all files within the specified directory.
drv2:	Is the destination DOS drive for the COPY operation. If you omit this drive, the COPY command uses the default drive.

\path2\	Is the destination DOS path name for the COPY operation. If you omit this path, the COPY command uses the default path.
filename2.ext	Is the file name and file extension of the destination file. If you omit the destination file name and file extension, the COPY command uses the source file name.

Qualifiers

/FORCE_WRITE	Forces the COPY operation to occur even if the destination file has the read-only attribute.
/LOG	Controls whether the COPY command displays the file specifications of each file copied.

Example 1

This example copies SAMPLE.DAT in the default directory on drive A to drive E.

```
E:\> COPY A:SAMPLE.DAT
E:\>
```

Example 2

This example copies USER.BAT from the default drive to drive A.

```
E:\> COPY USER.BAT A:
E:\>
```

Example 3

This example makes a copy of MYFILE.TXT with the name YOURFILE.TXT, and displays a message stating which file you copied.

```
E:\> COPY MYFILE.TXT YOURFILE.TXT/LOG
%PCDISK-I-CPD, E:\MYFILE.TXT to E:\YOURFILE.TXT
E:\>
```

Example 4

This example copies MYFILE.TXT to drive A and names it AFILE.TXT.

```
E:\> COPY MYFILE.TXT A:AFILE.TXT
```

Example 5

This example copies all the files in the root directory on drive E to drive
H and displays a listing of all the files you copied.

```
E:\> COPY *.* H:/LOG
%PCDISK-I-CPD, E:\RULES.MMS copied to H:\RULES.MMS
%PCDISK-I-CPD, E:\SYMBOL.TXT copied to H:\SYMBOL.TXT
%PCDISK-I-CPD, E:\USER.TXT copied to H:\USER.TXT
%PCDISK-I-NCPD, 3 File(s) copied
```

Related Commands

RENAME
XCOPY

Related Menu Item

None

CREATE

Purpose

This command creates and formats a DOS virtual disk file.

Guidelines

If there is a file by the same name in the target directory, the virtual disk
file is not created.

NOTE
You must use DOS V4.0 or later to access virtual disks larger than
32 Mbytes.

Privileges

None

Format

CREATE file-spec $\left[\begin{array}{l} \text{/ALLOCATION=n} \\ \text{/CONTIGUOUS} \\ \text{/LOG} \\ \text{/SIZE=n} \\ \text{/VOLUME\_LABEL=text} \end{array}\right]$

Parameters

file-spec   Is the VMS file specification.

Qualifiers

/ALLOCATION=n

Forces the allocation of the virtual disk file to the number of 512-byte blocks specified by n. The allocation size overrides the implicit size given by the /SIZE qualifier, but may not exceed it. The /ALLOCATION quantity must be between the limits specified in Table 2–4. Use the /ALLOCATION qualifier to create a virtual disk that is physically smaller than its formatted size.

/CONTIGUOUS

Specifies that the virtual disk file must be **contiguous**, that is, the file must occupy consecutive physical disk blocks. An error occurs if there is insufficient contiguous space to create the file. By default, a virtual disk file is allocated "contiguous best try".

/LOG

Controls whether the CREATE command displays a completion message stating the name of the new virtual disk file.

/SIZE=n

Defines the formatted size of the virtual disk file. When the virtual disk file is created, it is given the space implicitly allocated by the /SIZE qualifier, unless the /SIZE qualifier is overridden by the /ALLOCATION qualifier. The virtual disk is formatted according to the specified capacity. Table 2–4 contains the values for this qualifier and the default resultant VMS file sizes (in blocks), and the minimum allocation quantity allowed.

Qualifier Value	Default Allocation in Blocks	Minimum Allocation Size in Blocks
360KB	720	12
720KB	1440	14
1.2MB (default)	2400	29
1.44MB	2880	33
5MB	10240	66
10MB	20480	16417
20MB	40960	16457
32MB	65535	16505
64MB	131072	16633
128MB	262144	32977
256MB	524288	65665
512MB	1048576	65921

/VOLUME_LABEL=text

Indicates that you want a volume name affixed to your virtual disk file. The volume name can contain 1 to 11 characters. For examples of legal characters in volume labels, follow the PCDISK file naming conventions in Naming DOS Files. In addition to the legal characters, you can use the space and the period (.). If you use a space in the volume label, make sure you enclose the text string in quotes.

Example 1

This example shows how to create a 600-block virtual disk with the volume label DOS Files. Because the virtual disk size falls within the correct ranges in Table 2–4, the volume label is created. A completion message is displayed stating the name of the disk.

```
E:\>Create USER.DSK/SIZE=360kb/ALLOC=600 -
_E:\>/VOLUME_LABEL="DOS Files"/LOG
%PCDISK-I-CREATE, WORK:[PCDISK]USER.DSK; Created
E:\>
```

Example 2

This example shows the error message you receive when you try to create a virtual disk file that is less than the minimum allocation size.

```
E:\> Create USER.DSK/SIZE=360kb/ALLOC=3
%PCDISK-E-ECREATE, Error creating WORK:[PCDISK]USER.DSK;
-PCDISK-E-ALOUTRANG, ALLOCATION quantity must be within 12 to 720 blocks
E:\>
```

Related Commands

FORMAT

Related Menu Item

None

DELETE

Purpose

This command removes one or more files from a DOS device.

Guidelines

None

Privileges

None

Format

DELETE [drv:][\path\ ][filename.ext] $\left[\begin{array}{l} \text{/FORCE\_WRITE} \\ \text{/LOG} \\ \text{/[NO]QUERY} \end{array} \right]$

Parameters

drv:	Is the DOS drive containing the file you want to delete. If you omit this drive, the DEL command uses the default drive.
\path\	Is the DOS path name containing the file you want to delete. If you omit this path, the DEL command uses the current directory.
filename.ext	Is the file name and file extension of the file you want to delete.

Qualifiers

/FORCE_WRITE   Forces the DELETE operation to occur even if the file you
                  want to delete has the read-only attribute.

/LOG   Controls whether the DELETE command displays the file
                  specification of each file after its deletion.

/QUERY   Controls whether the "Are you sure (Y/N)?" query
                  is issued when all files in a directory are specified.
                  /NOQUERY would commonly be used within a command
                  procedure. The default is /QUERY.

Example 1

This example shows how to delete the file MEMO.DAT on drive E.

```
E:\> DEL MEMO.DAT
```

Example 2

This example shows how to delete the file MEMO.DAT on drive E, and
display a message stating which file you deleted.

```
E:\> DEL MEMO.DAT/LOG
%PCDISK-I-DLD, File MEMO.DAT deleted
```

Example 3

This example shows how to delete the file TEST.DAT in the default
directory on drive A when selected to drive E, enter:

```
E:\> DEL A:TEST.DAT
```

Example 4

This example shows how to delete the file MEMO.TXT in the subdirectory
WORK on drive E, enter:

```
E:\> DEL \WORK\MEMO.TXT
```

Example 5

This example shows how to delete all the files that end with the file extension .COM in the root directory on drive E.

```
E:\> DEL *.COM/LOG
%PCDISK-I-DLD, File E:\TEST.COM deleted
%PCDISK-I-DLD, File E:\LINK.COM deleted
%PCDISK-I-DLD, File E:\BOOK.COM deleted
%PCDISK-I-DLD, File E:\TEXT.COM deleted
%PCDISK-I-NDLD, 4 Files deleted
```

Related Commands

RMDIR

Related Menu Item

None

DIRECTORY

Purpose

This command displays information about the file entries contained in a directory.

Guidelines

When you use the DIRECTORY command, files are listed with the size (in bytes), the time, and the date of their last modification. The last column of the listing displays the file attributes. The file attributes are:

- A - archive
- S - system file
- H - hidden file (hidden files are listed in a directory search)
- R - read-only file

Also listed is the volume name, number of bytes used, and the number of files in the directory listing.

Format

DIRECTORY [drv:][\path\][filename.ext] $\begin{bmatrix} \text{/ARCHIVE\_ONLY} \\ \text{/[NO]ATTRIBUTES} \\ \text{/[NO]HIDDEN} \end{bmatrix}$

Parameters

drv:	Is the DOS drive containing the files for which you want a directory listing. If you omit this drive, the DIR command uses the default drive.
\path\	Is the DOS path name for which you want a directory listing. If you omit this path, the DIR command uses the current directory.
filename.ext	Is the file name and file extension of the files you want displayed. If this is omitted, all the files with the specified or defaulted directory will be displayed.

Qualifiers

/ARCHIVE_ONLY   Specifies that the directory is to include only those files that have the archive bit set.

/[NO]ATTRIBUTES   Displays or suppresses the file attributes. The default is /ATTRIBUTES.

/[NO]HIDDEN   Displays or suppresses hidden files. /NOHIDDEN takes precedence when specified with the /ARCHIVE_ONLY qualifier. The default is /HIDDEN.

Example

This example lists all the files for the current directory on drive E.

```
E:\> DIR

    Volume in Drive E is HARD_LOG1
    Directory of E:\

    USER        <DIR>          9-27-88         11:26a
    SAMPLE   WK1    13758      8-15-88          9:30a    A
    SAW      EXE    38912      1-09-88          5:14p
    FALSE    WK1     2332      4-30-88          4:31p    A
    456      TMP   133485      9-12-88          1:23a    A
    AUTOUSER BAT      662      7-25-88          2:18p
    JUNK     DAT       68     10-05-88          8:58a

    Total of 189217 bytes in 7 files.

E:\>
```

Related Commands

None

Related Menu Item

None

EXIT

Purpose

This command releases any connected DOS devices and exits the PCDISK utility.

Guidelines

None

Privileges

None

Format

EXIT [/LOG]

Parameters

None

Qualifiers

/LOG   Controls whether the EXIT command displays a completion message for each drive as it is disconnected during the exit procedure.

Example

This example shows how to display the disconnected drives when you exit, and to display a message stating which drives you disconnected.

```
A:\>EXIT/LOG
%PCDISK-I-VFDCON, Diskette WORK:[SARRO]MY_DOS_DISK.DSK; drive E:
disconnected
$
```

EXPORT

Purpose

This command copies (exports) one or more DOS files from a DOS device to the VMS file system.

Guidelines

None

Privileges

None

Format

EXPORT [drv:][\path\]filename1.ext - [disk][directory]filename2.ext -
$\left[\begin{array}{l}\text{/FORMAT=record\_format} \\ \text{/LOG} \\ \text{/SIZE=record\_size}\end{array}\right]$

Parameters

drv:	Is the DOS source drive containing the file you want to copy. If you omit this drive, the EXPORT command uses the default drive.
\path\	Is the DOS source path name containing the file you want to copy. If you omit this path, the EXPORT command uses the current directory.
filename1.ext	Is the file name and file extension of the file you want to copy.
disk	Is the VMS destination device name. If you omit this name, the EXPORT command uses the default VMS device.

directory   Is the VMS destination directory name. If you omit this
                     directory name, the EXPORT command defaults to the
                     current VMS default directory.

filename2.ext   Is the file name and file extension of the destination file.
                     You can use any valid VMS file name and file extension
                     as the destination file. If you omit the file name and
                     extension, the file defaults to the source file name.

Qualifiers

/FORMAT   Lets you specify the record format of the destination
                     file(s). Use of the /SIZE=n qualifier overrides this qualifier
                     and causes a fixed record format. Valid record formats
                     include:

                     STREAM (default)

                     FIXED

/LOG   Controls whether the EXPORT command displays the file
                     specifications of each file exported.

/SIZE   Lets you specify the record size of the destination file(s).
                     If you specify /FORMAT=FIXED, without the /SIZE
                     qualifier, the record size defaults to 512 bytes. Valid
                     record sizes are in the range of 2 bytes to 32766 bytes.
                     Record size numbers must be even.

Example 1

This example shows how to export the file SETUP.BAT from the current
drive E to the default VMS directory.

```
E:\> EXPORT SETUP.BAT
E:\>
```

Example 2

This example shows how to export the file SAMPLE.TXT from the
subdirectory \PERSONAL on drive D to the default VMS directory with
the destination file name EXAMPLE.DAT.

```
E:\> EXPORT D:\PERSONAL\SAMPLE.TXT EXAMPLE.DAT
E:\>
```

Example 3

This example shows how to export the file MYFILE.DAT from drive E
to the VMS subdirectory JONES.TEMP. The destination file is named
YOURFILE.DAT. A message stating which file you exported, and its
destination is displayed.

```
E:\> EXPORT MYFILE.DAT [JONES.TEMP]YOURFILE.DAT/LOG
%PCDISK-I-EPD, E:\MYFILE.DAT exported to DUA0:[JONES.TEMP]
YOURFILE.DAT

E:\>
```

Related Commands

IMPORT

Related Menu Item

None

FORMAT

Purpose

This command enables you to format a DOS device.

Guidelines

CAUTION
FORMAT destroys all the information recorded on your DOS device. Do not use FORMAT on a DOS device that contains useful information.

Privileges

You must have the PHY_IO privilege to format a physical device.

Format

FORMAT drv: $\left[\begin{array}{l} \text{/DEVICE=device\_name} \\ \text{/LOG} \\ \text{/VOLUME\_LABEL=text} \end{array}\right]$

Parameters

drv: Is the DOS drive you want to format.

Qualifiers

/DEVICE=device_name   Specifies physical VMS devices that contain non-DOS media or media that has never been formatted. The VMS device name must not contain a node, directory, or file specification. The device name must be followed by a colon, for example, DUA2:. You can use logicals that adhere to the above conventions. The FORMAT command with this qualifier connects the device to the specified DOS drive letter.

/LOG — Controls whether the FORMAT command displays a completion message stating the name of the formatted device.

/VOLUME_LABEL=text — Indicates that you want a volume name affixed to your DOS-formatted diskette. The volume name contains 1 to 11 characters. Follow the DOS file naming conventions in the section "Naming DOS Files" for examples of legal characters for volume labels.

Example 1

This example DOS-formats the VMS diskette DUA2, affixes the volume label CONFERENCES to it, and automatically connects it to drive A.

```
PCDISK> FORMAT A: /DEVICE=DUA2: /VOLUME_LABEL=CONFERENCES
A:\>
```

Example 2

This example DOS formats the virtual disk file, affixes the volume label CONFERENCES to it, and displays a completion message.

```
A:\> FORMAT A: /VOLUME_LABEL=CONFERENCES /LOG
%PCDISK-I-FORMAT, Drive A: disk DUA0:[MYDIR]MYFILES.DSK Formatted
A:\>
```

Related Commands

None

Related Menu Item

None

HELP

Purpose

This command displays online documentation for any PCDISK command.

Guidelines

This information includes formats and explanations of commands, parameters, and qualifiers.

Privileges

None

Format

HELP [topic] $\left[\begin{array}{l} \text{/OUTPUT=file\_spec} \\ \text{/[NO]PAGE} \end{array}\right]$

Parameters

topic   Is the PCDISK command about which you want information.

Qualifiers

/OUTPUT[=file_spec]   Controls where the output of the command is sent. If
                        you do not enter the qualifier, or if you enter /OUTPUT
                        without a file specification, the output is sent to the
                        current process default output stream or device identified
                        by the logical name SYS$OUTPUT.

                        If you enter /OUTPUT with a partial file specification (for
                        example, /OUTPUT=JONES), HELP is the default file
                        name and .LIS is the default file extension. If you enter a
                        file specification, no wildcards are allowed.

/[NO]PAGE   Controls whether to stop the HELP display when the
                        screen is full. If you specify /NOPAGE, output continues
                        until the information display ends or until you manually
                        control the scrolling. The default is /PAGE.

Example

You can obtain online documentation for any PCDISK command by invoking the HELP command. To use the HELP facility in its simplest form, enter the command HELP. HELP displays a list of topics and the Topic? prompt. To see information on one of the topics, enter the topic name after the prompt. The following example is a sample HELP display for the PCDISK command IMPORT:

```
E:\> HELP IMPORT

IMPORT

    Import copies one or more VMS files into a DOS device.
    During wildcard search, any VMS files that do not conform
    to the DOS file naming conventions will be ignored. These
    files may be imported by specifying the full VMS file name,
    (no wildcards), and supplying a valid DOS output file name.

    Format:

    IMPORT VMS-input-spec  [DOS-output-spec]


  Additional information available:

  Parameters Command_Qualifiers
  /FORCE_WRITE           /LOG

  IMPORT Subtopic?
```

If the topic has subtopics, HELP lists the subtopics and displays the Subtopic? prompt. For information on one of the subtopics, enter the name after the prompt. For information on another topic, press the Return key. You can ask for information on another topic when HELP displays the Topic? prompt. To exit the HELP system, press Return again. At any time, press CTRL/Z to exit.

Related Commands

None

Related Menu Item

None

IMPORT

Purpose

This command copies (imports) one or more files from your VMS file system to a DOS device.

Guidelines

None

Privileges

None

Format

IMPORT [device][directory]filename1.ext - [drv:][\path\][filename2.ext] -
[/FORCE_WRITE]
[/LOG   ]
[/TEXT   ]

Parameters

device	Is the VMS source containing the file you want to import. If you omit this name, the IMPORT command uses the default VMS device.
directory	Is the VMS directory name containing the file(s) you want to copy. If you omit this directory name, the IMPORT command uses the current default VMS directory.
filename1.ext	Is the VMS file name and file extension of the file(s) you want to copy. Make sure your VMS file meets the conventions for DOS file name and file extension. If your VMS file name and file extension do not adhere to the DOS file-naming conventions, you must import the file specifying a valid DOS file name as the destination file name. See the Naming DOS Files section of this chapter.

drv: Is the DOS destination drive for the IMPORT command.
                        If you omit this drive name, the IMPORT command uses
                        the default drive.

\path\   Is the DOS destination path name for the IMPORT
                        command. If you omit this path, the IMPORT command
                        uses the current directory.

filename2.ext   Is the file name and file extension of the destination file.
                        If this is omitted the name of the source file is used.

Qualifiers

/FORCE_WRITE   Forces the IMPORT operation to occur even if the
                        destination file has the read-only attribute.

/LOG   Controls whether the IMPORT command displays the file
                        specifications of each file imported.

/TEXT   Insures that each line of text in the DOS destination files
                        ends with a carriage-return, linefeed <CR><LF>.

Example 1

This example shows how to import the file SETUP.BAT from the default
VMS directory to the current drive E.

```
E:\> IMPORT SETUP.BAT
E:\>
```

Example 2

This example shows how to import the file PROCEDURES_FOR_
COPYING_FILES.TXT from the default VMS directory to the subdirectory
\PERSONAL on drive D and name the destination file to EXAMPLE.DAT.

```
E:\> IMPORT PROCEDURES_FOR_COPYING_FILES.TXT -
_D:\PERSONAL\EXAMPLE.DAT

E:\>
```

Example 3

This example shows how to import the file MYFILE.DAT from the VMS subdirectory JONES.TEMP to drive E. The destination file is named YOURFILE.DAT. A screen message stating which file you imported and its destination is displayed.

```
E:\> IMPORT [JONES.TEMP]MYFILE.DAT YOURFILE.DAT/LOG
%PCDISK-I-IPD, DUA0:[JONES.TEMP]MYFILE.DAT imported to E:\
YOURFILE.DAT

E:\>
```

Related Commands

EXPORT

Related Menu Item

None

LABEL

Purpose

This command creates, changes, or deletes a disk volume label on the specified drive.

Guidelines

The LABEL command is similar to the SET DRIVE command. The SET DRIVE command uses VMS-like command syntax. The LABEL command performs the same function using DOS-like command syntax. Note that drv:label is one parameter. Specify this parameter without spaces.

Privileges

None

Format

LABEL [drv:label]

Parameters

drv:	The drive is specified as an alpha character A to Z or a to z, followed by a colon (:). If you omit this drive, the LABEL command uses the current default drive.
label=text	Specifies the text of the volume label, which can be a maximum of 11 ASCII characters.

Qualifiers

None

Example 1

This example shows how to create a disk volume label for drive E by being prompted for the information.

```
E:\> VOLUME
Volume in drive E has no label
Volume label (11 characters, ENTER for none)? APPLICATION
E\> LABEL
Volume in drive E is APPLICATION
```

Example 2

This example shows how to delete the disk volume label for drive E.

```
E:\> LABEL
Volume in drive E is TEST
Volume label (11 characters, ENTER for none)?  Return
Delete current volume label (Y/N)? Y
```

Example 3

This example shows how to create the volume label TASKS on drive E, and then change the volume label to PRACTICE on drive E.

```
E:\> LABEL E:TASKS
E:\> LABEL
Volume in drive E is TASKS
Volume label (11 characters, ENTER for none)? PRACTICE
E:\> VOLUME
 Volume in drive E is PRACTICE
```

Related Commands

SET DRIVE

Related Menu Item

None

MKDIR

Purpose

This creates a directory on a DOS device.

Guidelines

None

Privileges

None

Format

MKDIR | MD [drv:][\path]\directory name [/LOG]

Parameters

drv:	Is the DOS drive on which you want to make a subdirectory. If you omit this drive, the MKDIR command uses the current drive.
\path\	Is the DOS path name you want to make to the new subdirectory.
directory name	Is the name of the subdirectory you are creating.

Qualifiers

/LOG   Controls whether the MKDIR command displays a message stating which subdirectory you created.

Example 1

This example shows how to create the subdirectory PERSONAL in your root directory.

```
E:\> MKDIR PERSONAL
E:\>
```

Example 2

This example shows how to create the subdirectory USER under the subdirectory PERSONAL and displays a message stating that it was created.

```
E:\> MD \PERSONAL\USER/LOG
%PCDISK-I-MKDIR, Directory \PERSONAL\USER created
E:\>
```

Related Commands

RMDIR

Related Menu Items

None

RMDIR

Purpose

This command removes a directory from a DOS device.

Guidelines

None

Privileges

None

Format

RMDIR | RD [drv:][\path]\directory name [/LOG]

Parameters

drv:	Is the DOS drive containing the subdirectory you want to remove.
\path\	Is the DOS subdirectory you want to remove. You must delete all files in a subdirectory before you use the RMDIR command. You cannot remove root directories.
directory name	Is the name of the subdirectory you are removing.

Qualifiers

/LOG   Controls whether the RMDIR command displays a message stating which subdirectory you removed.

Example 1

This example shows how to remove the directory DOCUMENTS from drive E.

```
E:\> RMDIR \DOCUMENTS
E:\>
```

Example 2

This example shows how to remove the subdirectory USER from the directory PERSONAL on drive E, and to display a screen message stating which directory you removed.

```
E:\> RD \PERSONAL\USER/LOG
%PCDISK-I-RMDIR, Directory \PERSONAL\USER removed
E:\>
```

Related Commands

MKDIR

Related Menu Item

None

RENAME

Purpose

This command renames one or more specified files. Unlike the DOS RENAME command, files can be renamed across directories.

Guidelines

None

Privileges

None

Format

RENAME [drv:][\path1\]filename1.ext - [\path2\]filename2.ext - [/LOG]

Parameters

drv:	Is the DOS drive containing the file you want to rename. If you omit this drive, the RENAME command uses the default drive. You cannot rename files across drives.
\path1\	Is the DOS path name to the directory containing the file you want to rename. If you omit this path, the RENAME command uses the current directory.
filename1.ext	Is the file name and the file extension of the current file.
\path2\	Is the DOS path name to the directory that contains the new file name.
filename2.ext	Is the new file name and file extension.

Qualifiers

/LOG   Controls whether the RENAME command displays the file specifications of each file renamed.

Example 1

This example shows how to rename the file PAINTER.TXT on drive E to ARTIST.DAT.

```
E:\> RENAME PAINTER.TXT ARTIST.DAT
E:\>
```

Example 2

This example shows how to rename BOOK.TMP to TOME.TMP, and to display a screen message stating which file you renamed and its new name.

```
E:\> RENAME BOOK.TMP TOME.TMP/LOG
%PCDISK-I-RENAMED, BOOK.TMP renamed to TOME.TMP
E:\>
```

Example 3

This example shows how to use the asterisk as a wildcard to rename files in the current directory. The files with the extension .PSA are changed to have the extension .PSE.

```
A:\> RENAME/LOG *.PSA *.PSE
%PCDISK-I-RND, A:CH1.PSA renamed to CH1.PSE
%PCDISK-I-RND, A:CH2.PSA renamed to CH2.PSE
A:\>
```

Related Commands

COPY

Related Menu Items

None

SET CONDITION

Purpose

This command sets the error severity level at which the active PCDISK
session will terminate.

Guidelines

This command would commonly be used within a command procedure
to terminate the session when an error occurs, rather than attempt
execution of subsequent commands.

Privileges

None

Format

SET CONDITION [/SEVERITY=error_level]

Parameters

None

Qualifiers

/SEVERITY=error_level   Specifies the error severity level at which PCDISK
                              will terminate the current active session. Valid
                              levels are:

                              WARNING

                              ERROR

                              SEVERE_ERROR (default)

Example 1

This example sets the error severity level at ERROR. If the active
PCDISK session encounters errors of this severity, it will terminate.

```
A:\> SET CONDITION /SEVERITY=ERROR
A:\>
```

Related Commands

None

Related Menu Item

None

SET DRIVE

Purpose

This command sets or displays volume information.

Guidelines

This command is similar to the LABEL command. The LABEL command
sets or displays volume information using DOS-like command syntax.
The SET DRIVE command sets or displays information using VMS-like
command syntax. To display the volume label, omit the /VOLUME_
LABEL qualifier.

Privileges

None

Format

SET DRIVE [drv:] $\left[\begin{array}{l} \text{/EXTEND=n} \\ \text{/VOLUME\_LABEL=text} \end{array} \right]$

Parameters

drv: Specifies the drive on which you want to set or display volume
        information. If you do not specify a drive, the SET DRIVE command
        uses the current default drive.

Qualifiers

/EXTEND=n   Specifies the number of blocks the drive should be
                                   extended.

                                   If n=0, this command extends the drive to its
                                   formatted size.

/VOLUME_LABEL=text

If n equals a number that would result in a size greater than the formatted size, this command extends the drive only to its formatted size.

Indicates that you want a volume name affixed to your virtual disk file. The volume name can be from 1 to 11 characters. Specifying quotation marks """" causes the volume label to be deleted.

Example 1

This example displays that drive E has no volume label.

```
E:\> SET DRIVE E:
Volume in drive E has no label
```

Example 2

This example shows how to delete the volume label FILES from drive A.

```
A:\> SET DRIVE A:
Volume in drive A is FILES
A:\> SET DRIVE A:/VOLUME LABEL=""
A:\>
```

Example 3

This example shows how to set the volume label to TEST on drive E.

```
E:\> SET DRIVE E:/VOLUME_LABEL=TEST
```

Related Commands

LABEL

Related Menu Item

None

SET FILE

Purpose

This command sets, clears, or displays DOS file attribute information.

Guidelines

This command is similar to the ATTRIBUTE command. The ATTRIBUTE command sets or displays file attributes using DOS-like command syntax. The SET FILE command sets or displays attribute information using VMS-like command syntax. To display the file attributes, omit the /ATTRIBUTE qualifier.

Privileges

None

Format

SET FILE file-spec [/ATTRIBUTES] [/LOG]

Parameters

file-spec   Specifies the DOS file(s) from which you want attribute information.

Qualifiers

/ATTRIBUTES=[(keyword[,...])]	Specifies one or more attributes to be set or cleared. The following are valid keywords for the /ATTRIBUTES qualifier:

[NO]ARCHIVE

[NO]HIDDEN

[NO]READ_ONLY

[NO]SYSTEM

For an explanation of the above keywords, see the ATTRIBUTE command.

/LOG — Controls whether the SET FILE command displays the file specification and attributes of each file.

Example 1

This example sets the file attribute to archive on file TEST.TXT.

```
E:\> SET FILE TEST.TXT/ATTRIBUTES=archive/LOG
%PCDISK-I-ATT, E:\TEST.TXT file attributes set to " A "
E:\>
```

Example 2

This example clears the archive attribute from the file TEST.TXT.

```
E:\> SET FILE TEST.TXT/ATTRIBUTES=noarchive/LOG
%PCDISK-I-ATT, E:\TEST.TXT file attributes set to "    "
E:\>
```

Example 3

This example clears the system file attribute from the file TMP.TXT, while setting the hidden file attribute.

```
E:\> SET FILE TMP.TXT/ATTRIBUTES=(NOSYSTEM,HIDDEN)/LOG
%PCDISK-I-ATT, E:\TMP.TXT file attributes set to " H "
C:\>
```

Related Commands

ATTRIBUTE

Related Menu Item

None

SHOW CONNECTIONS

Purpose

This command displays active PCDISK connections.

Guidelines

The display includes the:

- DOS drive letter
- DOS device type
- Access mode (for example, Read or Write)
- Number of sectors in the DOS device
- DOS device object

For more information on supported DOS devices and their objects, see the Supported Media section at the beginning of this chapter.

NOTE
The SHOW CONNECTIONS command gives you the same output as the USE command.

Privileges

None

Format

SHOW CONNECTIONS

Parameters

None

Qualifiers

None

Example

This example shows the active PCDISK connections and displays
information about them.

```
A:\> SHOW CONNECTIONS
Drive     Type     Access   Sectors   Name
A:        Floppy   R/W      2400      DUAO:[SARRO.DISKS]MY_DISK.DSK;
B:   LAD Floppy     R       65535     EXCA$SYSTEM_V20
C:        Hard     R/W      20723     DUAO:[SARRO.DISKS]DOSC.HRD
D:        Device   R/W      2400      DUA1:
A:\>
```

Related Commands

USE

Related Menu Items

None

SHOW DRIVE

Purpose

This command displays the total number of bytes and number of bytes free in a connected drive. It also displays the drive letter and volume label of the drive.

Guidelines

If you omit the drive specification, the SHOW DRIVE command uses the current default drive.

Privileges

None

Format

SHOW DRIVE [drv:]

Parameters

drv: Specifies the drive for which you want the byte number, drive letter, and volume label displayed.

Qualifiers

None

Example 1

This example displays the byte count and drive for the current default drive.

```
A:\> SHOW DRIVE

   Volume in Drive A has no label

Total bytes         :362496
Total bytes free    :253952
A:\>
```

Example 2

This example displays the drive, volume label, and byte count for the specified drive E.

```
A:\> SHOW DRIVE E:

  Volume in drive E is VMS FILES

Total bytes           :1213952
Total bytes free      :32256
A:\>
```

Related Commands

None

Related Menu Item

None

SHOW SERVICE

Purpose

This command displays all the available servers that offer the specified service.

Guidelines

The display includes:

*   Server node name

*   Service rating

*   Access mode

*   Connection limit to the service

*   Number of users of the service

*   Password requirements

*   Ethernet address of the server node

Privileges

None

Format

SHOW SERVICE name

Parameters

name   Is the service for which you want to display the servers offering it.

Qualifiers

None

Example

This example shows the servers that offer the service EXCA$SYSTEM_
V20 and displays information about it.

```
A:\> SHOW SERVICE EXCA$SYSTEM_V20
Server Rating  Write  Limit  Users  Password  Ethernet address
------ ------  -----  -----  -----  --------  ----------------
Bronte      1  No     None      18  No        AA-34-56-78-91-01
Woolfe      1  No       30       2  No        AA-13-14-15-16-17
Milton  65535  No       64       0  No        AA-22-23-30-31-32
```

Related Commands

USE

Related Menu Item

None

SHOW VERSION

Purpose

This command displays the PCDISK software version.

Guidelines

None

Privileges

None

Format

SHOW VERSION

Parameters

None

Qualifiers

None

Example

This example shows the PCDISK software version as PCDISK Version 1.1.

```
E:\> SHOW VERSION
PCDISK V1.1
E:\>
```

Related Commands

None

Related Menu Item

None

SPAWN

Purpose

This command creates a subprocess, suspending but not ending, your current PCDISK session.

Guidelines

You can use SPAWN to locate virtual disk file or run another utility without ending your PCDISK session. Use the LOGOUT command to terminate the subprocess and return to the PCDISK process.

Privileges

None

Format

SPAWN [command-string]

Parameters

command-
string

Specifies a command string to be executed in the context of the created subprocess. When the command completes, the subprocess terminates, and control is returned to the PCDISK process. The command string cannot exceed 132 characters.

Qualifiers

None

Example 1

This example shows how to spawn from your PCDISK session, locate files in a directory search, and return to your PCDISK session.

```
PCDISK> SPAWN
$DIR

Directory WORK:[PCDISK]

DOSA.FPY;1          DOSC.HRD;1          LOGIN.COM;9
DISK.HLB;23         GAMES.ARC;3         MY_DISK.DSK;1
NEW_FILES.COM;3     INDEX.COM;1

Total of 10 files.
$ LOGOUT
Process USER_1 logged out at 14-JUN-1989 10:55:55.70
PCDISK>
```

Example 2

This example shows how to spawn from your PCDISK session into the mail utility, and return to your PCDISK session.

```
PCDISK> SPAWN MAIL
MAIL>...
MAIL> EXIT
PCDISK>
```

Related Commands

None

Related Menu Item

None

TYPE

Purpose

This command displays the contents of a file.

Guidelines

None

Privileges

None

Format

TYPE [drv:][\path\]filename.ext

Parameters

9KEEP)

drv:	Is the DOS drive containing the file you want to display. If you omit this drive, the TYPE command uses the default drive.
\path\	Is the DOS path name containing the file you want to display. If you omit this path, the TYPE command uses the current directory.
filename.ext	Is the file name and file extension of the file you want to display.

Qualifiers

None

Example 1

This example shows how to display the file XFILE.DAT in the current directory.

```
E:\> TYPE XFILE.DAT
E:\>
```

Example 2

This example shows how to display the file YFILE.DAT in the default directory on drive B.

```
E:\> TYPE B:YFILE.DAT
```

Related Commands

None

Related Menu Item

None

USE

Purpose

This command displays a DOS device.

Guidelines

The USE command gives you the same output as the SHOW CONNECTIONS command.

The USE command options are described individually in this chapter. Table 2–5 describes the USE command options.

Table 2–5   USE Command Options

Option	Function
USE	Displays connected DOS devices
USE drv: DOS_device	Connects a DOS device
USE drv: /DELETE	Disconnects a DOS device

Privileges

None

Format

USE

Parameters

None

Qualifiers

None

Example

This example shows the active PCDISK connections and displays information about them.

```
A:\> USE
Unit    Type      Access    Sectors            Name
 A:     Floppy     R/W         720    DUA0:[SARRO.PCDISK]FLOPPY.DSK
 E:     Floppy     R/W       10319    DUA0:[SARRO.PCDISK]DATA.DSK
A:\>
```

Related Commands

SHOW CONNECTIONS
SHOW SERVICE

Related Menu Item

None

USE drv: DOS_device

Purpose

This command connects a DOS device.

Guidelines

None

Privileges

None

Format

USE drv: DOS device $\left[\begin{array}{l} \text{/HARD\_DISK} \\ \text{/LAD\_SERVICE} \\ \text{/LOG} \\ \text{/VIRTUAL} \\ \text{/[NO]WRITE} \end{array}\right]$

Parameters

drv: Is the DOS drive identifier. The possible values are A to Z.

DOS_device   The VMS virtual disk file name, DOS-formatted device, or
               PCSA disk service name that you want to connect as a DOS
               drive(s). For more information on supported DOS devices and
               their specification syntax, see the Supported Media section at the
               beginning of this chapter.

Qualifiers

/HARD_DISK	Specifies that the DOS device is in partitioned hard disk format. When connecting to a hard disk with multiple partitions, the drive letters are allocated in sequence beginning with the drive letter specified. If any of the drive letters in that sequence are in use, an error occurs and the hard disk is not connected.

NOTE

PCSA and NDU do not support partitioned hard disk format.

Virtual hard disks are commonly used by DOS emulators running on VMS.

/LAD_SERVICE or /VIRTUAL	Specifies that you want to connect a PCSA disk service.
/LOG	Controls whether the USE command displays the file specifications of each file connected. Indicates that you want a printed message on the screen stating which file you connected.
/WRITE or /RW (default) /NOWRITE or /RO	Controls whether you can write to the DOS device. Specify /NOWRITE or /RO to provide read-only access and protect files.

Example 1

This example shows how to connect the virtual disk MY_DISK.DSK as drive A.

```
PCDISK> USE A: MY_DISK.DSK
A:\>
```

Example 2

This example shows how to connect the diskette drive DUA2 as drive A.

```
PCDISK> USE A: DUA2:
A:\>
```

Example 3

This example shows how to connect the PCSA disk service VXSYS.

```
PCDISK> USE A: BRONTE::VXSYS/LAD_SERVICE
A:\>
```

Related Commands

SHOW SERVICE

Related Menu Item

None

USE drv: /DELETE

Purpose

This command disconnects a DOS device.

Guidelines

None

Privileges

None

Format

USE drv: /DELETE [/LOG]

Parameters

drv: Is the DOS drive identifier. The possible values are A to Z.

Qualifiers

/DELETE   Indicates that you want to disconnect a selected drive. If you
             disconnect any drive within a virtual hard disk, all drives on the
             virtual hard disk are disconnected. The disconnected drives are now
             free.

/LOG   Controls whether the USE command displays the file specifications
             of each file disconnected.

Example

This example shows how to disconnect the active drive and display a
message stating which drive you disconnected.

```
A:\> USE A:/DELETE/LOG
%PCDISK-I-VFDCON, Diskette WORK:[PCDISK]DOSA.FPY; Drive A: disconnected
PCDISK>
```

Related Commands

None

Related Menu Item

None

VOLUME

Purpose

This command displays the disk volume label of the specified drive.

Guidelines

None

Privileges

None

Format

VOLUME [drv:]

Parameters

drv: The drive is specified as an alpha character A to Z, or a to z, followed
          by a colon (:). If you omit the drive, the VOLUME command uses the
          current default drive.

Qualifiers

None

Example

This example shows how to use the VOLUME command to determine the
volume label on drive E.

```
E:\> VOLUME E:
Volume in drive E is TEST
E:\>dir
```

Related Commands

SET DRIVE

Related Menu Item

None

XCOPY

Purpose

This command copies groups of files.

Guidelines

Unlike the COPY command, XCOPY can copy an entire directory
structure, including subdirectories.

Privileges

None

Format

XCOPY [drv1:][\path1\][filename1.ext] [drv2:][\path2\][filename2.ext]
$$\left[\begin{array}{l} \text{/ARCHIVE} \\ \text{/FORCE\_WRITE} \\ \text{/[NO]LOG} \\ \text{/MODIFIED} \\ \text{/SUBDIRECTORIES} \end{array} \right]$$

Parameters

drv1:	Is the DOS drive with which you want the XCOPY command to start. If you omit this drive, XCOPY uses the default drive.
\path1\	Is the source directory with which you want the XCOPY command to start.
filename1.ext	Is the source file with which you want the XCOPY command to start.
drv2:	Is the destination drive where the XCOPY command is to copy files.
\path2\	Is the destination directory where the XCOPY command is to copy files.
filename2.ext	Is the destination file name. You can specify a different name if you want to rename the file.

Qualifiers

/ARCHIVE	Copies only files that have the archive attribute. The archive attribute of the source file remains unchanged.
/FORCE_WRITE	Forces a copy operation to occur even if the output specification is an existing file that has the read-only file attribute.
/LOG /NOLOG (default)	Controls whether a completion message is displayed which identifies any subdirectories created and the source and destination of any files copied.
/MODIFIED	Copies files with the archive attribute. Upon completion, the archive attribute of the source file is cleared.
/SUBDIRECTORIES	Copies files from the source directory and its subdirectories, and creates them on the destination drive. Upon completion, the archive attribute of the source file is cleared.

Example 1

This example shows how to copy all the files and subdirectories from the source directory to the destination directory.

```
E:\> XCOPY A:\ E:\ /S
E:\>
```

Example 2

This example shows how to copy every file that has the archive attribute from drive E to drive A, and retain the archive attribute on the source files.

```
E:\> XCOPY E:\ A:\ /A
E:\>
```

Example 3

This example shows how to copy every file that has the archive attribute from drive E to drive A, and clear the archive attribute on the source files.

```
E:\> XCOPY E:\ A:\ /M
E:\>
```

Related Commands

COPY

Related Menu Item

None

3
LAST Control Program

PCSA implements the Local Area System Transport (LAST) protocol in the VMS device driver ESS$LASTDRIVER. The LAST control program (ESS$LASTCP) is the management interface that allows you to control and diagnose ESS$LASTDRIVER. Using ESS$LASTCP, you can:

• Start and stop ESS$LASTDRIVER

• Display counters for circuits, lines, nodes, and ESS$LASTDRIVER

• Display node characteristics

• Display known clients and servers

• Display LAST status

• Reset counters

This chapter describes the ESS$LASTCP commands in alphabetical order.

To start ESS$LASTCP from DCL, set your default to SYS$SYSTEM and enter:

```
$  RUN SYS$SYSTEM:ESS$LASTCP
```

```
%ESS$LASTCP-I-VERSION, ESS$LASTDRIVER V1.4 is running
```

You can define a ESS$LASTCP foreign command, for example:

```
$  ESS$LASTCP :== $ESS$LASTCP
```

Then you can issue ESS$LASTCP commands from the DCL prompt.

You need normal user privileges to run ESS$LASTCP, except where noted.

To use the SHOW, STATUS, and ZERO commands, ESS$LASTDRIVER must be started.

Table 3–1 lists the ESS$LASTCP commands and their functions.

Table 3–1   ESS$LASTCP Commands

If you want to...	See the command...
Leave ESS$LASTCP and return to DCL	EXIT
Get help with ESS$LASTCP	HELP
Display known clients	SHOW CLIENTS
Display circuit counters	SHOW CIRCUIT COUNTERS
Display line counters	SHOW LINE COUNTERS
Display node characteristics	SHOW NODE CHARACTERISTICS
Display node counters	SHOW NODE COUNTERS
Display known servers	SHOW SERVERS
Display local status	SHOW STATUS
Display transport counters	SHOW TRANSPORT COUNTERS
Start LASTDRIVER	START TRANSPORT
Stop LASTDRIVER	STOP TRANSPORT
Reset counters	ZERO COUNTERS

You can abbreviate ESS$LASTCP commands to the first unique characters of the command verb. For example, you can abbreviate the command SHOW SERVERS to SH SE.

EXIT

Purpose

This command exits ESS$LASTCP and returns to DCL.

Guidelines

You can also press Ctrl/Z to exit ESS$LASTCP.

Privileges

None

Format

EXIT

Parameters

None

Qualifiers

None

Example

The following example exits ESS$LASTCP and returns to DCL:

```
ESS$LASTCP>  EXIT
$
```

Related Commands

None

Related Menu Item

None

HELP

Purpose

This command provides help on the LAST control program and its commands.

Guidelines

None

Privileges

None

Format

HELP topic

Parameters

topic   Is the ESS$LASTCP topic or command for which you want help.

Qualifiers

None

Example

The following example displays help for the ESS$LASTCP SHOW NODE
command:

```
ESS$LASTCP>  HELP SHOW NODE

SHOW

  NODE

    SHOW     ACTIVE NODE      CHARACTERISTICS
             KNOWN NODE       COUNTERS
             NODE node-id

    Display counters or characteristics for the node(s) selected.

    Additional information available:

    examples
```

Related Commands

None

Related Menu Item

None

SHOW CIRCUIT COUNTERS

Purpose

This command displays the circuit counters, which the Ethernet data link driver maintains.

Guidelines

None

Privileges

To use the SHOW CIRCUIT COUNTERS command, you must have SYSPRV and SHARE privileges.

Format

SHOW CIRCUIT COUNTERS $\left[\begin{array}{l} \text{/ALL\_CONTROLLERS} \\ \text{/CONTROLLERS=(letter[,...]} \end{array}\right]$

Parameters

None

Qualifiers

/ALL_CONTROLLERS	Displays the circuit counters for all Ethernet controllers in use.
/CONTROLLERS=(letter)	Displays the circuit counters for the Ethernet controllers specified. To specify an Ethernet controller, determine the device's unit name in the form DDCU.

DD   Is the device type

C   Is the controller letter

U   Is the unit number

For example, B is the controller for device XQB3.

If you omit both /ALL_CONTROLLERS and /CONTROLLERS, ESS$LASTCP displays the counters for the first Ethernet controller.

Example

The following example shows the circuit counters for all Ethernet controllers in use:

```
ESS$LASTCP>  SHOW CIRCUIT COUNTERS /ALL_CONTROLLERS

Ethernet Circuit Counters on unit XQA3:
  48938482   Bytes received
  44263546   Bytes sent
     70647   Data blocks received
     66823   Data blocks sent
         0   Local buffer errors
         0   Multicast received but not enabled

Ethernet Circuit Counters on unit XQB3:
  43241769   Bytes received
  39768821   Bytes sent
     68976   Data blocks received
     60375   Data blocks sent
         0   Local buffer errors
         0   Multicast received but not enabled
```

Related Commands

None

Related Menu Item

None

SHOW CLIENTS

Purpose

This command displays information for all known clients in the network.

Guidelines

The information includes:

- Nodename, which is the client's DECnet node name.

- Node id, which is the client's hardware address and incarnation value. The incarnation value is an identifier assigned to each client each time the client is restarted.

- Physical address, which is the Ethernet address.

- Active links, which is the number of links the client has created.

- Start time, which is the time the client connected to the server. If the client is not connected, ESS$LASTCP displays a hyphen.

Privileges

None

Format

SHOW CLIENTS

Parameters

None

Qualifiers

None

Example

The following example displays a list of all known clients:

```
ESS$LASTCP>  SHOW CLIENTS

     Node              Node            Physical        Active    Start
     Name              Id              Address         Links     Time
     MAG357      08002B05B19B-2122   AA-00-04-00-59-25     1       -
     THOLIN      08002B082600-3C2A   AA-00-04-00-40-26     0       -
     XOCHTL      08002B080A5E-5D11   AA-00-04-00-05-25     0       -
     BRONTE      08002B082415-101F   AA-00-04-00-1D-25     2       -
     MILTON      08002B045CD1-050F   AA-00-04-00-2A-26     0       -
     WOOLFE      08002B0308F5-4D19   AA-00-04-00-4D-25     0       -
     WRONG       08002B045C6D-4711   AA-00-04-00-60-25     2       -
     JIMF1       08002B045DDF-310F   AA-00-04-00-2A-27     1       -
     SUMAC       08002B080645-0006   AA-00-04-00-42-25     0       -
     BOOT        08002B040EEC-D723   08-00-2B-04-0E-EC     0       -
```

Related Commands

None

Related Menu Item

None

SHOW LINE COUNTERS

Purpose

This command displays the line counters, which the data link maintains.

Guidelines

The line counters reflect all users of the data link for this controller. See the *DECnet-VMS Network Control Program Reference Manual* for a complete description of this counter.

Privileges

To use the SHOW LINE COUNTERS command, you must have SYSPRV and SHARE privileges.

Format

SHOW LINE COUNTERS $\left[\begin{array}{l}\text{/ALL\_CONTROLLERS} \\ \text{/CONTROLLERS=(letter[,...])}\end{array}\right]$

Parameters

None

Qualifiers

/ALL_CONTROLLERS	Displays the line counters for all Ethernet controllers in use.
/CONTROLLERS=(letter)	Displays the line counters for the Ethernet controllers specified. To specify an Ethernet controller, determine the device's unit name in the form DDCU.

DD   Is the device type

C   Is the controller letter

U   Is the unit number

For example, B is the controller for device XQB3.

If you omit both /ALL_CONTROLLERS and /CONTROLLERS, ESS$LASTCP displays the counters for the first Ethernet controller.

Example

This example displays the line counters for the first Ethernet controller.

```
ESS$LASTCP>  SHOW LINE COUNTERS

Ethernet Line Counters on unit XQA3:
    65535   Seconds since last zeroed
   521887   Receive frames
       12   Receive errors
   110796   Multicast frames received
 92535097   Receive bytes
  7018641   Multicast bytes received
   438736   Transmit frames
        0   Transmit errors
    32338   Multicast frames transmitted
 74717562   Transmit bytes
  2420463   Multicast bytes transmitted
      522   Frames sent, single collision
      606   Frames sent, multiple collisions
        0   Frames sent, initially deferred
        0   Transmit collision detect check failures
        0   Data overruns
        1   System buffer unavailable
        0   User buffers unavailable
        0   Unrecognized frame destination
```

Related Commands

None

Related Menu Item

None

SHOW NODE CHARACTERISTICS

Purpose

This command can display node characteristics for a specific node, the list of active nodes, or the list of known nodes.

Guidelines

The node characteristics are:

- Nodename, which is the client's or server's DECnet node name.

- Node id, which is the node's **hardware address** and **incarnation value**. The incarnation value is an identifier assigned to each node each time it is restarted.

- Physical address, which is the Ethernet address.

- Active links, which are the number of links the client has created.

- Start time, which is the time the client connected to the server. If the client is not connected or if the node is a server, ESS$LASTCP displays a hyphen.

Privileges

None

Format

SHOW $\begin{bmatrix} \text{NODE nodename} \\ \text{KNOWN NODE} \\ \text{ACTIVE NODE} \end{bmatrix}$

CHARACTERISTICS

Parameters

nodename   Is the client's or server's DECnet node name.

Qualifiers

None

Example

The following example displays node characteristic information for node
BRONTE:

```
ESS$LASTCP>  SHOW NODE BRONTE

    Node            Node            Physical        Active   Start
    Name            Id              Address         Links    Time

    BRONTE      08002B082415-101F  AA-00-04-00-1D-25   0       -
```

Related Commands

None

Related Menu Item

None

SHOW NODE COUNTERS

Purpose

This command can display node counters, which ESS$LASTDRIVER maintains for a specific node for all active nodes, or for all known nodes.

Guidelines

The information displayed is:

- The number of bytes received and sent
- The number of frames received and sent
- The number of commands received and sent

Privileges

None

Format

SHOW $\left[\begin{array}{l} \text{NODE nodename} \\ \text{ACTIVE NODE} \\ \text{KNOWN NODE} \end{array} \right]$

COUNTERS

Parameters

nodename   Is the DECnet node name for the node whose counters you want to display.

Qualifiers

None

Example

The following example shows counters for node BRONTE:

```
ESS$LASTCP> SHOW NODE BRONTE COUNTERS

Node counters for node BRONTE

     2415 Bytes received
    33144 Bytes sent
       45 Frames received
       57 Frames sent
        0 Commands issued
       17 Commands received
```

Related Commands

None

Related Menu Item

None

SHOW SERVERS

Purpose

This command displays information for all known servers in the network.

Guidelines

The information includes:

* Nodename, which is the server's DECnet node name.

* Node id, which is the server's hardware address and incarnation value. The incarnation value is an identifier assigned to each server each time ESS$LASTDRIVER is started.

* Physical address, which is the Ethernet address. If a server has more than one Ethernet controller, all Ethernet addresses are displayed.

* Active links, which is the number of links the client has created. For the SHOW SERVERS command, active links are always 0.

* Start time, which is the time the client connected to the server. For the SHOW SERVERS command, start time is always a hyphen.

Privileges

None

Format

SHOW SERVERS

Parameters

None

Qualifiers

None

Example

The following example shows all known servers:

```
ESS$LASTCP>  SHOW SERVERS
```

Node Name	Node Id	Physical Address	Active Links	Start Time
LETTER	08002B028F25-87C0	AA-00-04-00-12-26	0	–
AUTHOR	AA0003013C27-FA60	AA-00-04-00-83-27	0	–
WRITER	08002B035577-0BA0	AA-00-04-00-24-26	0	–
TYPIST	08002B02F0CC-6300	AA-00-04-00-5E-25	0	–
EDITOR	08002B039028-11A0	AA-00-04-00-42-26	0	–
PENCIL	AA00030108C1-3420	AA-00-04-00-08-24	0	–
CRAYON	08002B032BD0-8680	08-00-2B-02-35-DD	0	–
		AA-00-04-00-5F-26		
MARKER	08002B0210CC-87A0	AA-00-04-00-D7-25	0	–
PASTEL	08002B029814-44E0	AA-00-04-00-63-25	0	–
PAINTS	08002B06E9F1-E4E0	AA-00-04-00-9A-25	0	–
PINK	08002B02F51B-B9E0	AA-00-04-00-A1-27	0	–
BROWN	08002B0612B6-4980	AA-00-04-00-DA-25	0	–

Related Commands

None

Related Menu Item

None

SHOW STATUS

Purpose

This command displays the local status of ESS$LASTDRIVER.

Guidelines

The value of the circuit service timeout is the value that was set with the START TRANSPORT/TIMEOUT command. If the /TIMEOUT qualifier is not used with the START TRANSPORT command, the value of the circuit service timeout is 0.

Privileges

None

Format

SHOW STATUS

Parameters

None

Qualifiers

None

Example

The following example displays the status of ESS$LASTDRIVER:

```
$ RUN SYS$SYSTEM:ESS$LASTCP
%ESS$LASTCP-I-VERSION, ESS$LASTDRIVER V1.4 is running

ESS$LASTCP> SHOW STATUS
Status of ESS$LASTDRIVER V1.4 on node TDOG at 1-JAN-1990 15:56:55
Protocol version 3.0, Uptime: 15 06:35:43.14, Checksum Off,
Slow mode Off
```

```
66549 Bytes pool
    8 Ethernet buffers
   16 I/O request packets
    9 Association control blocks
    1 Local session control blocks
    0 LSC In-Use blocks
    2 Transaction control blocks
    9 Circuit status blocks
  182 Node data blocks
    5 Transmit quota
   80 Maximum circuits
    0 LAN group code
    0 Server circuit timeout
```

Related Commands

None

Related Menu Item

None

SHOW TRANSPORT COUNTERS

Purpose

This command displays the transport counters, which ESS$LASTDRIVER maintains.

Guidelines

None

Privileges

None

Format

SHOW TRANSPORT COUNTERS $\left[\begin{array}{l} \text{/ALL\_COUNTERS} \\ \text{/CONTROLLERS=(letter[,...])} \end{array}\right]$

Parameters

None

Qualifiers

/ALL_CONTROLLERS	Displays the transport counters for all Ethernet controllers in use.
/CONTROLLERS=(letter[,...])	Displays the transport counters for the Ethernet controllers specified. To specify an Ethernet controller, determine the device's unit name in the form DDCU.

DD	Is the device type
C	Is the controller letter
U	Is the unit number
	For example, B is the controller for device XQB3.

If you omit both /ALL_CONTROLLERS and
/CONTROLLERS, ESS$LASTCP displays the
counters for the first Ethernet controller.

Example

The following example displays the transport counters for controller A:

```
ESS$LASTCP>  SHOW TRANSPORT COUNTERS /CONTROLLERS=(A)

ESS$LASTDRIVER Transport Counters for XQA3

     251608  Seconds since last zeroed
    5549774  Receive frames
          0  Receive multicasts
          0  Receive duplicates
          0  Receive errors
   00000000  Last receive failure code
    6204594  Transmit frames
          0  Transmit errors
   00000000  Last transmit failure code
          0  Retransmissions
          0  Datalink Restarts
          1  Protocol errors
   00000001  Protocol error bit mask
          0  Checksum errors
          3  Client transaction aborts
          6  Server transaction aborts
          8  Missed segment request aborts
          0  No Transmit buffers
          0  Invalid transaction mode
          0  Illegal circuit ID
        211  Invalid multicast messages
          1  Congested circuit
Protocol errors include:
    Invalid run message
```

Related Commands

None

Related Menu Item

None

START TRANSPORT

Purpose

This command initializes an Ethernet controller with the LAST protocol.

Guidelines

By default, ESS$LASTDRIVER is started on the first Ethernet controller (A) on the system.

The START TRANSPORT command is also in the LAD_STARTUP.COM file, so the transport is started automatically.

To use the START TRANSPORT command, you must have CMKRNL and SYSPRV privileges. Start the transport *after* you start DECnet. DECnet does not start properly if you start the transport first.

Privileges

None

Format

START TRANSPORT
$$
\left[
\begin{array}{l}
\text{/ALL\_CONTROLLERS} \\
\text{/CHECKSUM} \\
\text{/CIRCUIT\_MAXIMUM=n} \\
\text{/CONTROLLERS=(letter[,...])} \\
\text{/GROUP=n} \\
\text{/NODENAME=name} \\
\text{SLOW\_MODE} \\
\text{/TIMEOUT=n} \\
\text{/TRANSMIT\_QUOTA=n}
\end{array}
\right]
$$

Parameters

None

Qualifiers

/ALL_CONTROLLERS	Initializes all present Ethernet controllers with the LAST protocol. Do not use this qualifier with the /CONTROLLERS qualifier.
/CHECKSUM	Allows ESS$LASTDRIVER to checksum all messages sent and received. By default, /CHECKSUM is not enabled.
/CIRCUIT_MAXIMUM=n	Specifies the maximum number of clients that can connect to the disk server. The number of clients can be in the range of 1 to 65535. By default, 80 clients can connect to the disk server.
/CONTROLLERS=(letter[,...])	Initializes the specified Ethernet controllers with the LAST protocol. Do not use this qualifier with the /ALL_CONTROLLERS qualifier. By default, ESS$LASTCP initializes the first Ethernet controller. To specify an Ethernet controller, determine the device's unit name in the form DDCU.

DD	Is the device type
C	Is the controller letter
U	Is the unit number

For example, B is the controller for device XQB3.

/GROUP=n	Is the group code to associate with the disk server. By default, the group code is 0. If you assign a group code to a disk server, only workstations with the same group code can connect to services offered by the server.
/NODENAME=name	Initializes ESS$LASTDRIVER with the specified node name. By default, ESS$LASTCP uses the DECnet node name.

/SLOW_MODE

Forces remote transports to transmit only one segment at a time. Use this qualifier *only* when a transmitter can transmit at a faster rate than the local node can receive. By default, /SLOW_MODE is not enabled.

TIMEOUT=n

Specifies the minimum interval in seconds to be used by the server transport to determine when inactive clients should be disconnected. An inactive client is one that has been turned off or otherwise isolated from the server.

By default, the server's timer is specified by the client transport. This qualifier allows a minimum value to be enforced on all connections.

The letter n represents an integer value in the range of 60 to 65535 seconds.

/TRANSMIT_QUOTA=n

Limits the number of concurrent message buffers that ESS$LASTDRIVER can transmit for each transaction. The default transmit quota is five message buffers.

Example 1

The following example starts ESS$LASTDRIVER and initializes controller A:

```
ESS$LASTCP> START TRANSPORT /CONTROLLERS=(A)
%ESS$LASTCP-I-STARTED, ESS$LASTDRIVER V1.4 started on node NODE2
%ESS$LASTCP-I-ADAPINIT, Initializing adapter XQA6: for ESS$LASTDRIVER
ESS$LASTCP>
```

Example 2

The following example starts ESS$LASTDRIVER, initializes all controllers, and limits the number of client connections to 50:

```
ESS$LASTCP> START TRANSPORT /ALL_CONTROLLERS /CIRCUIT_MAXIMUM=50
%ESS$LASTCP-I-STARTED, ESS$LASTDRIVER V1.4 started on node NODE2
%ESS$LASTCP-I-ADAPINIT, Initializing adapter XQA6: for ESS$LASTDRIVER
%ESS$LASTCP-I-ADAPINIT, Initializing adapter XQB6: for ESS$LASTDRIVER
ESS$LASTCP>
```

Related Commands

None

Related Menu Item

None

STOP TRANSPORT

Purpose

This command stops ESS$LASTDRIVER.

Guidelines

Any active sessions are aborted and all system dynamic memory is returned.

Privileges

To use the STOP TRANSPORT command, you must have CMKRNL and SYSPRV privileges.

Format

STOP TRANSPORT

Parameters

None

Qualifiers

None

Example

The following example stops ESS$LASTDRIVER:

```
ESS$LASTCP> STOP TRANSPORT
%ESS$LASTCP-I-STOPPED, ESS$LASTDRIVER stopped
ESS$LASTCP>
```

Related Commands

None

Related Menu Item

None

ZERO COUNTERS

Purpose

This command can reset transport, circuit, or specific-node counters, which are maintained by the data link or LAST.

Guidelines

None

Privileges

None

Format

ZERO $\left[\begin{array}{l} \text{TRANSPORT} \\ \text{CIRCUIT} \\ \text{NODE nodename} \end{array}\right]$

COUNTERS

Parameters

nodename   Is the DECnet node name for the client whose counters you want to reset.

Qualifiers

None

Example 1

The following example resets the transport counters on all Ethernet controllers initialized with LAST:

```
ESS$LASTCP>  ZERO TRANSPORT COUNTERS
%ESS$LASTCP-I-ZEROTRAN, Transport counters zeroed
ESS$LASTCP>
```

Example 2

The following example resets the circuit counters on all Ethernet controllers initialized with LAST:

```
ESS$LASTCP> ZERO CIRCUIT COUNTERS
%ESS$LASTCP-I-ZEROCIRC, Circuit counters zeroed
ESS$LASTCP>
```

Example 3

The following example resets the counters for node FLUX.

```
ESS$LASTCP> ZERO NODE FLUX COUNTERS
%ESS$LASTCP-I-ZERONODE, Node counters for FLUX zeroed
ESS$LASTCP>
```

Related Commands

None

Related Menu Item

None

Index

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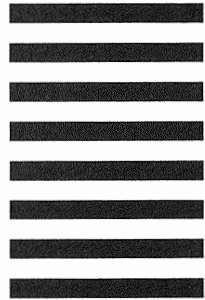
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