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# VMS LAD Control Program (LADCP) Manual

Order Number: AA-PKDAA-TE

**November 1991**

This manual describes the VMS LAD Control Program (LADCP) utility for configuring and controlling the local area disk (LASTport/Disk) protocol on VMS host systems.

**Revision/Update Information:** This is a new manual.

**Software Version:** VMS Version 5.5

**Digital Equipment Corporation  
Maynard, Massachusetts**

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**November 1991**

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# Preface

## Intended Audience

This manual is intended for VMS system managers.

## Document Structure

This document consists of the following three sections:

- **Description**—Provides a brief description of the VMS LAD Control Program utility (LADCP).
- **Usage Summary**—Outlines the following LADCP information:
  - Invoking the utility
  - Exiting the utility
  - Restrictions or privileges required
- **Commands**—Describes LADCP commands, including format, parameters, and examples.

## Related Documents

For a discussion of setting up, managing, monitoring, and troubleshooting the Ethernet system server, see the user's guide for your Ethernet system server product.

## Conventions

The following conventions are used in this manual:

Ctrl/x	A sequence such as Ctrl/x indicates that you must hold down the key labeled Ctrl while you press another key or a pointing device button.
<span style="border: 1px solid black; padding: 2px;">Return</span>	In examples, a key name is shown enclosed in a box to indicate that you press a key on the keyboard. (In text, a key name is not enclosed in a box.)
.	A vertical ellipsis indicates the omission of items from a code example or command format; the items are omitted because they are not important to the topic being discussed.
()	In format descriptions, parentheses indicate that, if you choose more than one option, you must enclose the choices in parentheses.
[]	In format descriptions, brackets indicate that whatever is enclosed within the brackets is optional; you can select none, one, or all of the choices. (Brackets are not, however, optional in the syntax of a directory name in a file specification or in the syntax of a substring specification in an assignment statement.)
red ink	Red ink indicates information that you must enter from the keyboard or a screen object that you must choose or click on. For online versions of the book, user input is shown in <b>bold</b> .
<b>boldface text</b>	Boldface text represents the introduction of a new term or the name of an argument, an attribute, or a reason. Boldface text is also used to show user input in online versions of the book.
<i>italic text</i>	Italic text represents information that can vary in system messages (for example, Internal error <i>number</i> ).
UPPERCASE TEXT	Uppercase letters indicate that you must enter a command (for example, enter OPEN/READ), or they indicate the name of a routine, the name of a file, the name of a file protection code, or the abbreviation for a system privilege.
numbers	Unless otherwise noted, all numbers in the text are assumed to be decimal. Nondecimal radices—binary, octal, or hexadecimal—are explicitly indicated.

## LADCP Description

You use the LAD Control Program utility (LADCP) to configure and control the LASTport/Disk local area disk protocol on VMS host systems. VMS systems that use LASTport/Disk services are called LASTport/Disk client nodes. You can use LADCP to do the following:

- Establish **bindings** to LASTport/Disk services. A binding creates a new DAD $n$ : virtual disk unit on the local VMS system.
- Remove bindings to LASTport/Disk services.

You can control service access by using a service access password. You can also write-protect LASTport/Disk services. In this case, local VMS users of the DAD $n$ : device unit receive an error if they attempt a write operation to the unit.

The LASTport/Disk protocol allows you to access disk media that reside on an InfoServer system as though they were locally connected to your VMS system. This allows several VMS client nodes to share the same disk media, eliminating the need for duplicate disk drives and media.

These DAD $n$ : device units are also referred to as **virtual disk units**. They represent the local VMS context for a disk volume that resides on a remote server. The VMS driver that controls these DAD $n$ : units is called ESS\$DADDRIVER.

The LASTport/Disk protocol depends on the LASTport local area system transport. The ESS\$STARTUP.COM command procedure in SYS\$MANAGER automatically loads the LASTport/Disk driver (ESS\$DADDRIVER) as well as the local area system transport driver (ESS\$LASTDRIVER).

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### Note

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Your site-specific startup command procedure must include a call to ESS\$STARTUP.COM. If you are using DECnet software, you must place the call *after* the SYS\$MANAGER:STARTNET.COM command that starts DECnet.

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The following description of LADCP covers three topics:

- Invoking and exiting the utility
- Utility commands
- LADCP Help facility

## 1 Invoking and Exiting the Utility

To invoke LADCP, enter the following command:

```
$ RUN SYSS$SYSTEM:ESS$LADCP
LADCP>
```

You can enter LADCP commands at the LADCP> prompt.

You can also execute a single LADCP command by using a DCL string assignment statement, as shown in the following example:

```
$ LADCP ::= $ESS$LADCP
$ LADCP BIND CD_DOC_00661 /NOWRITE
```

## LADCP Description

LADCP executes the BIND command and returns control to DCL.

To exit LADCP, type EXIT or press Ctrl/Z after the LADCP> prompt.

## 2 Utility Commands

Table LADCP-1 summarizes the LADCP commands.

**Table LADCP-1 Summary of LADCP Commands**

Command	Function
BIND	Establishes a LAD service binding and creates a DAD device unit.
EXIT	Returns the user to DCL command level.
HELP	Displays help text for LADCP commands.
UNBIND	Eliminates an established LAD service binding.

## 3 LADCP Help Facility

LADCP provides a Help facility that contains information about each LADCP command, including parameters, qualifiers, and examples of its use. See the HELP command description for more information about the LADCP Help facility.



## LADCP Usage Summary

The VMS LAD Control Program (LADCP) allows you to establish and remove LASTport/Disk service bindings that are maintained by the LASTport/Disk protocol driver (ESS\$DADDRIVER) on a VMS node.

### Format

```
RUN SYS$SYSTEM:ESS$LADCP
```

**Command Qualifiers**

None.

**Defaults**

None.

**Parameters**

None.

### Usage Summary

To invoke LADCP, type RUN SYS\$SYSTEM:ESS\$LADCP at the DCL command prompt. At the LADCP> prompt, you can enter any of the LADCP commands described in the following section. These commands follow the standard rules of grammar as specified in the *VMS DCL Dictionary*.

To exit from LADCP, type the LADCP command EXIT at the LADCP> prompt or press Ctrl/Z.

## LADCP Commands

This section describes the following LADCP commands and provides examples of their use:

- BIND
- EXIT
- HELP
- SHOW SERVICES
- UNBIND

---

**BIND**

Establishes a binding to a LASTport/Disk service and creates a DAD $n$ : virtual disk unit.

**Format**

BIND service-name

**Parameter****service-name**

Specifies the name of the LASTport/Disk service to bind to. This name may be up to 255 ASCII characters long. You can use any of the valid characters in the following list. Services are offered to the VMS client node by InfoServer systems. Usually, a service name is the same as the volume label of the disk volume that the InfoServer system is providing LASTport/Disk service access to.

If you assign an InfoServer name, you can use only the following set of characters:

- A–Z
- a–z
- 0–9
- \$ (dollar sign)
- . (period)
- \_ (underscore)
- - (hyphen)
- Multinational characters in the ASCII range 192–255

All InfoServer names are case insensitive. For example, InfoServer software treats an uppercase A and lowercase a as the same character.

**Qualifiers****/[NO]ASYNCHRONOUS**

Specifies whether all write requests should complete immediately. The default is /NOASYNCHRONOUS. /NOASYNCHRONOUS prevents the write request from completing until the data has been written to the remote physical disk volume. /ASYNCHRONOUS results in faster response times.

**/GROUP**

Specifies whether a logical name of the form DAD $\$$ service-name is placed in the group logical name table. The variable *service-name* is the name of the service for which a binding is being established. This logical name points to the DAD $n$ : virtual disk unit that the BIND command creates. GRPNAM privilege is required to use this qualifier.

**/PASSWORD=password-string**

Specifies an optional service access control password. The password is required if the InfoServer system requires password protection for the specified service name. The password string can be up to 39 ASCII characters long.

## LADCP BIND

### **/SYSTEM**

Specifies whether or not a logical name of the form `DAD$service-name` is placed in the system logical name table. The value *service-name* is the name of the service for which a binding is being established. This logical name points to the `DADn:` virtual disk unit that the BIND command creates. `SYSNAM` privilege is required to use this qualifier.

### **/[NO]WRITE\_ENABLE**

Tells the `ESS$DADDRIVER` to allow the VMS user write access to the service. The default is `/NOWRITE_ENABLE`.

## Description

The BIND command creates a local `DADn:` device unit on the VMS system, representing a `LASTport/Disk` service binding between the local node and the remote disk volume. This `DADn:` virtual disk unit provides the local context for the remote volume and is the target of user I/O operations. A logical name in the form `DAD$service-name` is placed in the process logical name table and points at the `DADn:` unit.

Use the UNBIND command to eliminate an existing binding.

## Example

```
LADCP> BIND CD_DOC_00661/SYSTEM
%LADCP-I-BIND, service bound to logical unit DAD$CD_DOC_00661 (_DAD10:)
$ MOUNT/SYSTEM DAD$CD_DOC_00661 CD_DOC_00661
```

In this example, the BIND command creates a `DADn:` unit named `DAD10:` that is the target of user I/O requests to access a remote disk volume named `CD_DOC_00661`. The logical name `DAD$CD_DOC_00661` is placed in the process logical name table as well as in the system logical name table, providing a more convenient name for the virtual disk unit. The user would then enter the DCL command `MOUNT/SYSTEM` to make the remote disk volume available for file operations to all users on the local VMS system.

## EXIT

Stops execution of LADCP and returns control to DCL command level. You can also press Ctrl/Z to exit at any time.

### Format

EXIT

### Parameters

None.

### Example

```
LADCP> EXIT
```

In this example, the EXIT command exits the LADCP program and returns control to DCL command level.

## HELP

Provides online help information for using LADCP commands.

### Format

HELP [command-name]

### Parameter

**command-name**

Specifies the name of a LADCP command. If you enter the HELP command with a command name only, such as HELP BIND, LADCP displays a list of all of the command keywords used with the SET command.

### Description

The HELP command is an online reference for LADCP commands. After you view an initial help display, press Return. The help display stops, and the LADCP prompt is displayed. If you do not specify a command name, the HELP command displays general information on the commands for which help is available. Specifying a command name displays syntax information on that command.

### Example

```
LADCP> HELP BIND
```

In this example, the HELP BIND command displays a description of the BIND command and the command format.

---

## SHOW SERVICES

Displays services offered by all available InfoServer systems on the network.

### Format

SHOW SERVICES

### Parameters

None.

### Description

The SHOW SERVICES command provides the following information:

- Service name of the service offered, such as ONLINE\_DOC.
- Type of device containing the service, such as RRD42.
- Service rating—higher ratings indicate better service.
- Current connects.
- Whether writes are allowed to the device.

### Example

```
LADCP> SHOW SERVICES
Interrogating network, please wait...
```

Services offered by node LIBRARY\_ESS (LAD V3.0, Address: 08-00-2B-XX-XX-XX)

Service:	Device:	Rating:	Current Connects:	Writes Allowed?:
ONLINE_DOC	RRD42	64751	1	No
CONDIST3	RRD42	64760	3	No
CONDIST2	RRD42	64751	4	No
CONDIST1	RRD42	64751	4	No
VXT_FONT_SET_BL4X	RZ23L	65016	0	Yes
.				
.				
.				

In this example, the SHOW SERVICES command displays information about available services.

---

## UNBIND

Ends an existing binding between the local VMS system and a remote disk volume.

### Format

UNBIND virtual-device-name

### Parameter

#### **virtual-device-name**

Specifies the name of the virtual device unit that represents the service binding. This name is either the name of the DAD*n*: unit returned in the BIND command, or the logical name DAD\$*service-name* created by the BIND command that points at the DAD*n*: unit.

### Description

The UNBIND command ends the binding between the local VMS system and the LASTport/Disk service. The DAD*n*: virtual disk unit that represents this binding is deleted from the system. If the DAD*n*: unit is mounted, entering the DCL command DISMOUNT/UNLOAD dismounts the volume, ends the service binding, and deletes the DAD*n*: unit from the system. You should use UNBIND only when a service binding is created that cannot be mounted, or when a service must be deleted for any other reason.

To end a LASTport/Disk service binding:

#### 1. If the DAD*n*: unit is mounted

- Notify all users of the LASTport/Disk service to stop performing I/O requests to the corresponding DAD*n*: unit.
- Dismount the DAD*n*: unit by entering the DCL command DISMOUNT /UNLOAD DAD*n*:. This command ends the binding and automatically deletes the DAD*n*: unit.

#### 2. If the DAD*n*: unit is not mounted

- Enter the LADCP command UNBIND to end the binding and delete the DAD*n*: unit.

Nonprivileged users can use the UNBIND command only for a virtual disk unit that they created with a BIND command. BYPASS privilege is required to unbind a virtual disk unit not owned by the user.

### Example

```
LADCP> UNBIND DAD$CD_DOC_00661
%LADCP-E-MOUNTED, cannot UNBIND a mounted device
%LADCP-I-DISMOUNT, please use VMS command DISMOUNT/UNLOAD to delete unit
```

In this example, the UNBIND command returns an error because the DAD*n*: unit is mounted. In this case, the user would have to enter the DCL command DISMOUNT/UNLOAD to end the binding and delete the DAD*n*: unit. Note that the LADCP command UNBIND is not needed after a DCL command DISMOUNT /UNLOAD.



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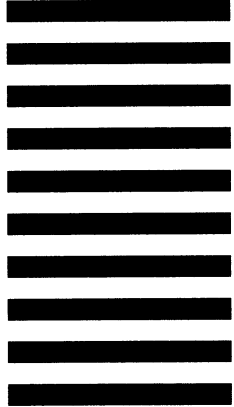
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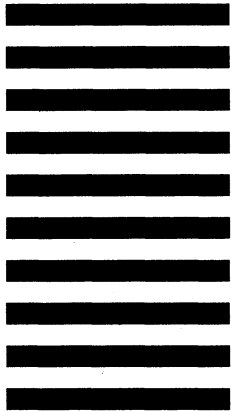
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